3.-Descriptions of Fishes from the Coast of Natal. By J. F. D. Gilchrist, M.A., D.Sc., Ph.D., and W. Wardlaw Thompson.

## Family PERCIDA.*

Aulacocerhalus temininckif, Bleek.
(Yellow-stripe Rock Cod.)
Depth of body 3 times in total length excluding caudal, length of head $2 \frac{1}{2}$ to $2 \frac{3}{4}$ times; snout $2 \frac{1}{3}$ times diameter of eye, which is $6 \frac{1}{5}$ times in length of head, and equal to or slightly less than interorbital space; lower jaw projecting; maxillary extending to below centre of eye, the width of its distal extremity about diameter of eye. Gill-rakers longer than gill-fringes, 17 or 18 on lower part of anterior arch.

Dorsal ix 12 ; originating above base of pectoral ; third or fourth spines longest, about $3 \frac{2}{3}$ in head, shorter than longest soft ray; a deep notch between spinous and soft portions of fin. Pectorals $2_{5}^{3}$ in head ; ventrals shorter. Anal iii 9 ; second and third spines about equal, hardly half as long as longest soft ray. Caudal truncate. Lateral line strongly curved, approaching the spinous dorsal, forming an angle below the last dorsal ray.

Colour, a broad yellow stripe runs along near the dorsal region of the body, from the upper base of the caudal through the eye to the end of the snout.

Two specimens, one 230 mm . in length presented by Mr. Quekett, of the Durban Museum, the other 250 mm . in length from Mr. Robinson, Natal. They agree with the description of A. temminckii, but the rays of the soft dorsal are relatively a little longer, and there is no bifurcation of the yellow stripe.
A. temminckii occurs in the Sea of Japan, Siam, and Mauritius.

## Grammistes sexlineatus, Thunb.

Teeth, in villiform bands on jaws, a small chevron-shaped band on vomer, a band on palatines. Depth of body $2 \frac{1}{2}$ to $2 \frac{3}{3}$ times in total

[^0]length excluding caudal, length of head $2 \frac{?}{10}$ to 3 times. Snout slightly longer than diameter of eye, which is equal to or a little less than interorbital width and $4 \frac{2}{3}$ to 5 times in length of head. Profile of head rounded, with a slight depression above orbits; cleft of mouth oblique, lower jaw slightly projects beyond upper and has a small flap or tubercle on chin, maxillary reaches to vertical of posterior margin of eye or slightly beyond it; vertical limb of preoperculum with three or four spinate deuticulations on its border; three opercular spines, the middle one most developed and nearer to upper.

Dorsal vii, I 13-14; spines weak, 3rd or 2nd and 3rd longest and a little more than $\frac{1}{3}$ length of head; soft portion of fin higher than spinous and with a rounded margin, longest rays about $\frac{1}{2}$ length of head. Pectorals same length as ventrals and rather more than $\frac{1}{2}$ length of head. Anal 9 ; similar to soft dorsal, about the same height as soft dorsal or a little higher, but not so long. Caudal broad and rounded, about $\frac{7}{10}$ length of head and with a broad peduncle about $\frac{1}{2}$ length of head in breadth. Scales embedded in epidermis; numerous pores the openings of mucous glands all over the body, a specially prominent row (about 63 in all) in the region of the lateral line can be made out in the largest specimen.

Colour (of preserved specimens), blackish brown or chocolate brown, with seven or eight narrow longitudinal white lines extending over head and body. A quantity of mucus is given out over the body by this fish on capture, and some of it remains in white patches on the largest specimens.

Two specimens, from which the above description has been taken: one, 103 mm . in length, from Durban Museum, caught at Jetty Point by Mr. Turner, of the Harbour Board; the other, 107 mm . in length, from Mr. Robinson, Natal, caught at Durban. Another specimen, 70 mm . in length, also forwarded by Mr. Robinson, was caught in a small rock-pool at Isipingo, near Durban; the colour when the fish was alive is reported to have been black, and the longitudinal stripes yellow and five in number.
G. sexlineatus is found in the Indian and Western Tropical Pacific Oceans, and is recorded for the first time for Natal.

Lutianus salmonoides, n. sp.
(Rock Salmon.)
Canines of upper jaw small, those of lower jaw equal the succeeding teeth and less than the most posterior. Depth of body $2_{10}^{7}$ in total
length excluding caudal, equals length of head; snout a little over twice diameter of eye, which is $5 \frac{1}{2}$ times in head ; dorsal profile from end of snout to nape of neck almost straight; lower jaw not projecting beyond upper; maxillary reaches to below anterior half of eye; the suprascapula and posterior edge of preoperculum finely serrated, the latter slightly emarginate.

Dorsal $\times 13$; fourth spine longest, a little over $2 \frac{1}{3}$ in head; longest soft ray equals the free portion of the caudal region. Pectorals less than length of head equal distance between posterior edge of operculum and first margin of eye, and reach scarcely to the anus. Ventrals do not reach vent by about a fourth of the length. Anal iii $S$; third spine longer than the second in the larger specimen, about equal to it in the smaller. Candal emarginate. Sc. $44_{\frac{6.5}{15}}$. Lat. line 46.
Colour. This a handsome fish, purplish brown above with reddish belly.

Two specimens, the larger, 317 mm . in length, from the harbour, Natal, where it is found near old wrecks and rocks; the smaller, 162 mm ., from East London.

It is most nearly allied to L. aryentimaculatus.

## Priacanthus cruentatus, Lacép.

Depth of body $2 \frac{1}{2}$ to $2 \frac{3}{3}$ times in total length excluding caudal, length of head 3 to $3 \frac{1}{3}$ times; snout about $\frac{1}{2}$ diameter of eye, which is 2 to $2 \frac{1}{4}$ times in length of head; interorbital width 3 to $3 \frac{1}{5}$ in length of head ; spine at angle of preoperculum rather strong, serrated, length $\frac{1}{3}$ diameter of eye; 18 gill-rakers on lower portion of anterior arch.

Dorsal $\times 12$; originating above origin of pectorals, spines subequal from the 4 th or 5 th ; the last spine $1 \frac{2}{5}$ to 2 times as long as 2nd, and $\frac{2}{5}$ to $\frac{1}{2}$ length of head; longest soft rays about $\frac{1}{3}$ longer than longest spines ; spines strongly spinulose, soft rays feebly so. Pectorals $\frac{1}{2}$ to $\frac{3}{3}$ length of head; ventrals $\frac{1}{2}$ to $\frac{2}{3}$ length of head, spine strongly spinulose. Anal iii 14 ; 3rd spine longest, nearly as long as last dorsal spine; spines spinulose, soft rays feebly so. Caudal truncate. Scales ciliated. Sc. 100 茫. Lat. l. 78.

Colour (of preserved specimen), body whitish, dorsal, caudal, and anal fins edged with black.

This fish appears to be the immature form of the above-named species.

Two specimens, 141 mm . and 135 mm . in length respectively, from Durban Museum.

## Priacanthus arenatus, C. and V.

Depth of body $2 \frac{1}{2}$ times in total length excluding caudal, length of head 3 times. Snout nearly $\frac{3}{4}$ diameter of eye, which is $2 \frac{1}{2}$ times in length of head (without mandible) ; interorbital width $\frac{3}{5}$ diameter of eye and 4 times in length of head. Spine at angle of preopercle short, and indistinct in larger specimen; preorbital serrated along upper and lower borders; an inconspicuous spine on opercle; maxillary reaches to vertical of anterior third of orbits; 23 gill-rakers on lower part of anterior arch.

Dorsal $\times 14$; spines of moderate strength increasing in height to the last, which is $1 \frac{3}{5}$ to $1 \frac{2}{3}$ length of 2 nd spine and $\frac{3}{5}$ length of head ; the first four spines more or less spinulose. Longest soft rays not much higher than longest spines ; rays spinulose. Pectorals $\frac{3}{5}$ length of head. Ventrals as long as head, the spine $\frac{3}{5}$ to $\frac{3}{4}$ length of longest ray and spinulose. Anal iii 15 ; 3rd spine longest, $\frac{3}{4}$ to $\frac{4}{5}$ height of longest spine of dorsal ; spines and soft rays spinulose, soft portion of fin about the same height as soft dorsal. Caudal slightly emarginate. Scales spinulose $90-96$; lat. 1. 78, lat. tr. $\frac{9.9}{32 \cdot 40}$.

Colour (of preserved specimens), pale brownish yellow, slightly reddish above.

Two specimens, one 260 mm . in length, from Mr. Robinson, Natal, who reports it is a fish caught by the fishing boats off Port Shepstone ; the other, 121 mm . in length, was procured from Indian fishermen in Durban Harbour.

## Ambassis natalensis, n. sp.

Teeth, villiform on jaws, vomer, palatines, and on tongue. Depth of body $2^{\frac{t}{3}}$ to 3 times in total length excluding caudal, length of head 3 to $3 \frac{ \pm}{5}$ times. Snout equals interorbital width and is $\frac{2}{3}$ to $\frac{t}{5}$ diameter of eye, which is $2 \frac{2}{3}$ to 3 times in length of head. Cleft of mouth very oblique, lower jaw longer than upper, maxillary reaches to vertical of anterior margin of orbits; a spine at posterior upper angle of orbits; vertical and horizontal edges and outer margin of the preoperculum finely serrated; the inner margin has two strong spines at its angle directed backwards; preorbital serrated, interopercle not serrated.

Dorsal, vii I 10-11; spines moderately strong, 2nd spine longest, $\frac{3}{4}$ to $\frac{4}{5}$ length of head and about $\frac{2}{3}$ the height of the body below it. Pectorals $\frac{3}{4}$ to $\frac{4}{5}$ length of head. Ventrals $\frac{9}{3}$ to $\frac{3}{4}$ length of head. Anal in $10-11$; 3rd spine longest, about $\frac{1}{2}$ to $\frac{3}{5}$ length of head and $\frac{3}{5}$ to $\frac{4}{5}$ height of longest spine of dorsal. Caudal forked. Scales, 2
rows below sub-orbital ring. Lat. 1. 27-30, continuous and curves to about middle of soft dorsal, where it becomes straight ; lat. tr. ${ }_{8 .}^{8}$.

Colour (of preserved specimens), outline of scales on dorsal part of body marked by thin brown lines, front edge of dorsal and tip of anterior rays dark, a black streak along posterior two-thirds of side of body in the middle.

Numerous specimens, ranging in length from 37 mm , to 56 mm , procured by ss. Pieter Faure from Inner Harbour, Durban, where they are said to be very abundant; they also occur in the salt and fresh waters of some of the tidal rivers of Natal.

This species closely resembles A. commersonii, which, however, has the lower margin of the inner ridge of the preoperculum finely serrated, not with 2 prominent backward directed spines.

## Apogon natalensis, n. sp.

Depth of body $2 \frac{2}{5}$ times in total length excluding caudal, length of head $2 \frac{t}{5}$ times. Snont equals diameter of eye, which is slightly over $1 \frac{1}{5}$ times in interorbital width and abont 4 times in length of head. Snout obtuse ; lower jaw slightly longer than upper ; cleft of mouth wide and slightly oblique ; maxillary reaches to posterior fourth of orbits; preoperculum serrated on both edges, angle rounded; shoulder serrated; a flat soft spine on operculum.

Dorsal vii, I 9 ; spines moderately strong; 3td, 4th, and 5th spines of anterior dorsal subequal, about $\frac{2}{5}$ length of head, succeeding ones decreasing in height. Spine of 2nd dorsal strong, nearly $\frac{3}{5}$ length of anterior rays, which are $1 \frac{2}{5}$ length of longest spine of 1 st dorsal and about twice the length of last soft ray, the posterior margin of the soft fin being rounded. Pectorals $\frac{2}{3}$ length of head, reach to vertical of origin of anal. Ventrals rather shorter than pectorals, reach to vent, spine strong $\frac{3}{5}$ length of longest rays. Anal ii 8; 2nd spine moderately strong, about same length as spine of soft dorsal ; fin similar in height and length to soft dorsal. Caudal emarginate, membranes partly covered with scales. Scales ciliated, lat. l. $37+4$ on caudal, lat. tr. $\frac{4}{14}$.

Colour (of preserved specimen), brown, with about 17 dark longitudinal stripes, spinous dorsal black, a black spot at base of pectorals.

One specimen, 151 mm . in length, from Mr. Robinson, Natal.

## Kuhlia teniura, C. and V.

Depth of body nearly 3 times in total length excluding caudal, length of head about $3 \frac{1}{2}$ times. Snout $\frac{2}{3}$ diameter of eye, which is
about 3 times in length of head and equals the interorbital width; lower jaw projecting; maxillary extending to below anterior third of orbits, the width of its distal extremity $2 \frac{ \pm}{3}$ in diameter of eye ; cheeks and opercles with large ctenoid scales; angle and lower border of preopercle finely denticulated; lower opercular spine strong; 26 gill-rakers on lower part of anterior arch.

Dorsal x 10 ; originating behind base of pectoral; 5th and 6 th spines longest, $\frac{7}{10}$ length of head, longer than anterior soft rays, Pectorals $\frac{2}{3}$ length of head; ventrals shorter, do not reach to anus. Anal iii 11; about as long as its distance from caudal; 3rd spine a little longer than $2 n d$, as long as 10 th dorsal spine. Caudal deeply forked, middle rays about $\frac{1}{2}$ length of outer. Lat. 1. 50, lat. tr. ${ }_{12}^{6}$.

Colour, silvery, bluish grey on back, edge of soft dorsal blackish; caudal with three black bands, one along the middle rays and two pairs converging posteriorly, and black patches at extremity:

One specimen, 93 mm . in length, from Mr. Robinson, Natal, found in pool on Natal coast: it differs slightly from Boulenger's description of $k$. taniura, the ventrals appear to be shorter, and the 10th dorsal spine is not longer than the 9 th.

Therapon jarbua, Forsk.
(Tiger-fish.)
Depth of body about 3 times in total length excluding caudal, length of head $3 \frac{3}{4}$ times. Snout about equals the interorbital width, and is from $1 \frac{1}{5}$ to $1 \frac{1}{3}$ times in diameter of eye, which is $3 \frac{1}{2}$ to 4 times in length of head; maxillary reaches to below anterior third of orbits; preorbital serrated on hinder two-thirds of its lower edge; preoperculum finely serrated, the serræ increasing in size at the angle, which is rounded and has two strong serre; upper spine of operculum small, lower large and strong and about $\frac{2}{3}$ diameter of eye in length; shoulder bone and bone in maxilla serrated, suband inter-opercle more finely so. Teeth villiform, with an enlarged outer row.

Dorsal xi-xii 10 ; notched; spines moderately strong ; 4 th or 5 th longest, about $\frac{7}{10}$ length of head; last spine nearly $1 \frac{1}{2}$ times length of preceding one and about $\frac{2}{3}$ length of adjacent soft ray. Pectorals short, from $\frac{1}{2}$ to ${ }_{3}^{3}$ length of head; ventrals $\frac{t}{5}$ length of head. Anal iii 8 ; 2nd spine strongest, about equal in length to the third, and about $\frac{1}{2}$ the length of the longest dorsal spine. Caudal forked.

Colour, three longitudinal irregularly curved dark bands on each side of body-the upper, from about middle of soft dorsal to nape of
neck, meeting a similar band on the other side; the second, from end of soft dorsal curving through lateral line to the occiput, each extremity uniting with the corresponding line on the other side: the lowest from extremity of middle rays of caudal curving below median line of body to the back of the head, where it joins the line from the other side. Caudal with two oblique bands on each lobe : a black blotch on dorsal from 4 th to 7 th spines, and from 9 th to 12 th ; first 3 soft rays of dorsal with their upper half coloured black.

Two specimens; one, 130 mm . in length, from Durban Museum, the other, 132 mm . in length, from $\mathrm{Mr}^{\prime}$. Robinson, Natal.

> Pristiponi * Bennettir, Lowe.
> (Rock Grunter, Black Chor-chor.)

Depth of body is about equal to length of head, and from 3 to $3 \frac{1}{2}$ times in total length excluding caudal. Snout about $1 \frac{1}{4}$ times diameter of eye in the specimen 194 mm . long, and about equal to the diameter of the eye in the smaller specimens ; diameter of eye abouti $\frac{1}{4}$ the length of the head, and about equal to the interorbital width ; cleft of mouth moderate, maxillary not reaching to vertical of anterior margin of orbits; preoperculum with posterior margin slightly emarginate, and with rather coarser denticulations at the angle, which is rounded.

Dorsal xii 16-17; notched, spines of moderate strength ; 4 th spine longest, $2 \frac{1}{3}$ times in length of head. Pectorals $3 \frac{1}{3}$ to $3 \frac{3}{4}$ times in length of body without caudal. Anal iii 12; 2nd spine stronger, about same length as 3rd, and rather shorter than highest dorsal spine. Caudal slightly forked. Lat. 1. 51-55, lat. tr. $\frac{8-9}{15}$.

Described from three specimens, 194 mm ., 145 mm ., 93 mm . in length respectively. The largest was sent by Mr. Robinson, Natal, who describes it as of a silvery colour with a yellowish tinge, belly white, dorsal slightly yellowish as also pectorals and anal, caudal greyish with dark tinge, a yellow-blackish opercular spot, a black streak across front part of eye, eyes black. Very plentiful on Natal coast and in Durban Bay. The smaller specimens were procured by the ss. Pieter Faure, one by shrimp trawl on January 21, 1901, South Head of Tugela River, W. by N. $4 \frac{1}{2}$ miles, 24 fms. mud; the other on January 16, 1901, off South Head of Tugela River, 12-14 fms. mud.

[^1]This fish is common on the South coast of Africa, and many specimens were procured by the ss. Pieter Faure in trawling.

It seems to us to be the same fish as $P$. olivaceum, Day ; and, if so, this indicates a very wide distribution, as it is also recorded from the Canary Islands, the coast of Algiers, and St. Vincent.

## Pristifoma hasta, Bl.

Depth of body $2 \frac{2}{3}$ times in total length excluding caudal, length of head about 3 times. Snout about $1 \frac{1}{2}$ times diameter of eye, which is $4 \frac{1}{3}$ times in length of head and a little less than the interorbital width ; jaws equal, maxillary reaches to a little beyond vertical of anterior margin of eye; posterior margin of preoperculum serrate and emarginate, angle rounded and with coarser denticulations; shoulder bone serrate.

Dorsal xii 15 ; originating above base of pectorals; 3rd and 4th spines longest, about $\frac{2}{5}$ to $\frac{1}{2}$ length of head, last spine nearly $1 \frac{1}{2}$ times as long as the 11th; spinous portion of fin higher than soft, and with a deep notch between. Pectorals elongate, asymmetrical, $\frac{t}{5}$ length of head; ventrals about the same length, reaching to vent, first ray about $\frac{1}{3}$ longer than the strong spine. Anal iii 8 ; 2nd spine very strong, longer than the 3rd, equal in length to longest dorsal spine. Caudal slightly crescentic. Lat. 1. 53, lat. tr. $\frac{8}{13}$.

Colour, sides with five or six vertical bands of dark spots; a dark spot on opercle, dark spots in rows on membranes of spinous dorsal, and two dark rows on soft dorsal.

Two specimens, one 161 mm . in length, from Durban Museum, the other 178 mm . in length, from Mr. Robinson, Natal.

## Pristipoma operculare, Playfair.

Depth of body about equals length of head, and is 3 times in total longth excluding caudal. Snout pointed and from $1 \frac{1}{2}$ to $1 \frac{3}{4}$ times diameter of eye, which is $4 \frac{1}{3}$ to $4 \frac{3}{5}$ times in length of head and a little less than interorbital width; preoperculum with posterior margin serrate and slightly emarginate, with slightly coarser denticulations at the rounded angle ; cleft of mouth moderate, maxillary reaching to about vertical of anterior nostril.

Dorsal xi 14 ; notched, spines of moderate strength; 4th spine highest, from $\frac{1}{2}$ to $\frac{3}{5}$ length of head. Pectorals about length of head. Anal iii 9; 2nd spine strongest and longest, equal in length to 3 rd dorsal spine. Caudal emarginate. Lat. 1. 57-59, lat. tr. $\frac{9}{16}$.

Colour, a dark blotch at upper posterior corner of opercle; middle
and upper half of the body with numerous dark spots in undulating longitudinal rows; black spots on spinous dorsal ; dorsal and caudal dark-edged.

Three specimens 138 mm ., 155 mm ., 180 mm . in length respectively, procured from Indian fishermen at Durban, caught by seine net.

## Pristipoma striatum, n. sp.

Depth of body $2 \frac{3}{5}$ in total length excluding caudal, length of head nearly $3 \frac{1}{4}$ times. Snout $1 \frac{1}{4}$ times in diameter of eye, which is nearly 4 times in length of head, and about $\frac{1}{7}$ less than the interorbital width. Cleft of mouth small, maxillary reaching to vertical of posterior nostril. Preoperculum with posterior border serrate, with denticulations at the angle, which is rounded.

Dorsal xii 14 ; notched, spines of moderate strength, 4 th longest $2 \frac{3}{5}$ times in length of head; spinous portion of fin higher than soft. Anal iii 7 ; 2nd spine strongest and longest, about equal to 4 th dorsal spine in length. Pectoral $1 \frac{1}{6}$ times in length of head; ventrals $1 \frac{4}{5}$ times. Caudal (damaged in specimen) lat. l. 52, lat. tr. $1 \frac{2}{18}$.

Colour, silvery, with three dark longitudinal lines on each sidethe upper following the curve of the dorsal, extending from about the end of the soft dorsal to the middle of interorbital space, where it joins the corresponding line on the other side ; the middle, commencing on upper border of orbits and following curve of lateral line to below middle of the soft dorsal, where it joins the third line, which extends along the centre of the body from base of caudal through eye to snout.

One specimen, 158 mm . in length, from Mr. Robinson, Natal, who states it is a rock fish found along with the " Karanteen."

## Pristipona teniophorus, Regan.

Depth of body about $2 \frac{2}{5}$ times in total length excluding caudal, length of head about $3 \frac{1}{3}$ times. Snout slightly longer than diameter of eye, which is about $3 \frac{3}{5}$ times in length of head and equals the interorbital width; cleft of mouth small, maxillary scarcely reaching to anterior margin of eye; preoperculum with posterior border serrate and emarginate, with coarser denticulations at rounded angle.

Dorsal xii 15-16; originating above base of pectoral, notched; spines strong; 4th spine longest, from $\frac{1}{2}$ to $\frac{2}{3}$ length of head. Anal iii 7; 2nd spine very strong and longer than the longest dorsal spine;
from $\frac{3}{5}$ to $\frac{2}{3}$ length of head. Pectorals as long as or a little longer than head. Ventrals $\frac{t}{3}$ length of head ; the 1 st ray slightly filamentous, and about $1 \frac{1}{2}$ times the length of the strong spine. Caudal slightly forked. Lat. 1. 50-51, lat. tr. $\frac{7-8}{16}$.

Colour, at least five longitudinal dark bands on body, three above the median line bifurcating anteriorly, the one on the median line bifurcating at base of caudal.

Two specimens, 165 mm . and 143 mm . in length respectively, from Mr. Robinson, Natal ; taken among rocks near the seashore.

## Pristipona multmaculatum, Playfair.

Depth of body $2 \frac{\text { t }}{5}$ times in total length excluding caudal, length of head 3 times. Snout $1 \frac{7}{10}$ times diameter of eye, which is $1 \frac{1}{5}$ times in interorbital width and $4 \frac{4}{5}$ times in length of head. Cleft of mouth small, jaws equal, maxillary reaches to vertical of posterior nostril ; a few scales on preorbital ; vertical border of preoperculum emarginate and serrated, more coarsely so at the angle, which has five spines ; a deep groove under symphysis of lower jaw.

Dorsal xi, I 13 ; spines strong, 3rd and 4th longest and about $\frac{1}{2}$ length of head, the succeeding spines decrease in length to the 11th, forming a notch between spinous and soft-rayed portions of fin: soft rays not as high as the longest spines. Pectorals in length of head, pointed and elongate. Ventrals $\frac{7}{10}$ length of head. Anal iii 7 ; the 2nd spine very strong, much longer than 3rd and slightly lower than longest spines of dorsal. Caudal emarginate, almost truncate, $\frac{2}{3}$ length of head. Scales on body and head ciliated, those on lower part of body minutely punctulated with brown. Lat. l. 47, lat. tr. ${ }_{12}{ }_{2}$ pectorals.

Colour (of preserved specimen), head and upper part of body covered with irregular dark brown spots, and two irregular rows on spinous and soft dorsals.

One specimen, 230 mm . in length, from Durban.

## Diagramima crassispintex, Rüpp.

Depth of body slightly over $\frac{1}{2}$ total length excluding caudal, length of head 3 times. Snout about $1 \frac{1}{3}$ times diameter of eye, which is $3 \frac{2}{3}$ to $4 \frac{1}{3}$ in length of head and slightly less than interorbital width ; posterior margin of preoperculum serrated, with about 4 slightly coarser serre at the angle, which is rounded ; maxillary reaches to below anterior border of eye.

Dorsal xiv 16; spines strong, alternately thicker on each side; the 4 th spine longest, about $\frac{3}{5}$ to $\frac{2}{3}$ length of head. Pectorals $\frac{2}{3}$ length of head, ventrals about $\frac{3}{4}$. Anal iii 7 ; 2nd spine very strong, longer than 3rd; equal in length to longest dorsal spine. Caudal truncate. Lat. 1. 53, lat. tr. $\frac{10}{17}$.

Colour. The larger specimen is dark brown with about six black lines passing obliquely across body ; the smaller is light grey.

Two specimens, 102 mm . and 183 mm . in length respectively, the former from Durban Museum, the latter from Mr. Robinson, Natal.

> Diagramma durbanense, n. sp.
> (Red-gills.)

Depth of body $2 \frac{1}{2}$ times in total length excluding caudal, length of head $3 \frac{2}{5}$ times. Snout nearly twice diameter of eye, which is $1 \frac{3}{5}$ times in interorbital width and 5 times in length of head; preoperculum with posterior margin finely serrated; head entirely covered with scales, snout in front of nostrils not scaly ; a transverse depression on snout midway between its point and the orbits; cleft of mouth oblique, lips thick, and the upper extending a little beyond the lower, maxillary reaching to vertical of posterior nostril.

Dorsal xii 20 ; originating above base of pectoral ; spines strong, 4 th, 5 th, and 6 th longest and subequal, nearly $\frac{2}{5}$ length of head; soft portion of fin lower than spinous. Pectorals $\frac{3}{5}$ length of head; ventrals slightly longer than pectorals, do not reach to anus by a space about equal to $\frac{1}{2}$ their length. Anal iii 8; 2nd spine strongest and slightly longer than 3rd, about equal in length to longest dorsal spines. Caudal crescentic. Scales ciliated (large on body with clusters of very small ones between each large scale); Lat. l. 52, Lat. tr. 112.

Colour, greyish brown shading to light grey below ; candal blackedged shading to grey at base; dorsal dark with black; anal dark grey; ventrals light grey with dark; pectorals light tinged with black; a dark mark at upper side of back; black on top of head; fringe of opercle scarlet opposite pectoral fin, then light crimson ; inside of mouth and tongue bright.

One specimen, 364 mm . in length, from Mr. Robinson, Natal, to whom we are indebted for the above description of the colouring.

## Dentex miles, n. sp. (Soldier.)

Teeth, canines moderately strong, 4 on the upper, 6 on the lower jaw. Depth of body $2 \frac{2}{5}$ times in total length excluding caudal,
length of head $3 \frac{1}{6}$ times. Snout $1 \frac{1}{2}$ times diameter of eye, which equals interorbital width and is $3 \frac{4}{5}$ times in length of head. Least depth of preorbital slightly less than diameter of eye ; jaws equal in front, maxillary reaches to vertical of anterior margin of orbits; preopercle entire; 7 series of scales between preorbital and margin of preoperculum, no scales on sub-orbital. Dorsal profile from snout to first dorsal slightly convex.

Dorsal xii 10 ; originating above base of pectorals, 3rd spine longest slender and $\frac{2}{3}$ length of head, succeeding spines decrease in height to the last, which is $\frac{2}{5}$ the length of 3rd spine ; soft rays slightly higher than adjacent spines, the last ray slightly elongated. Pectorals $1_{10}^{1}$ times length of head, reaching to in line with 2nd spine of anal. Ventrals $\frac{3}{4}$ length of head, first ray a little prolonged and reaching nearly to vent. Anal iii 8 ; spines moderately strong, 2nd and 3rd about equal and same height as posterior spines of dorsal; soft rays nearly half height of 3rd spine of dorsal and decreasing a little in height posteriorly except the last ray, which is slightly elongated. Caudal about $\frac{\pi}{6}$ length of head, deeply forked. Scales on upper surface of head come to a point between the eyes in a line with vertical of anterior margin. Lat. l. 58, lat. tr. $\frac{7}{14}$.

Colour (of preserved specimen), reddish above, silvery below, a dark shade across nape, longitudinal dark red lines on upper twothirds of body.

One specimen, 205 mm . in length, from Mr. Robinson, Natal.
The fish closely resembles $D$. filosus, Val., but the nape has no prominent convexity, there are 6 canines in the lower jaw, and scales extend forward between eyes to the vertical of their anterior margin.

## Dentex natalensis, n. sp. (Blueskin.)

Canine teeth moderately strong. Depth of body $2 \frac{1}{3}$ times in total length excluding caudal, length of head $3 \frac{1}{2}$ times. Snout slightly longer than interorbital width and about $1 \frac{1}{2}$ times diameter of eye, which is 4 times in length of head. Least depth of preorbital $\frac{3}{4}$ to $\frac{6}{7}$ diameter of eye ; preoperculum with vertical margin slightly emarginate; operculum with one spine; scales on interorbital space, and 7 or 8 series of scales on the cheek between sub-orbital region and preopercular border; lower jaw slightly projects, maxillary reaches to vertical of posterior nostril or anterior margin of eye; profile of head from origin of dorsal to point of snout slightly convex.

Dorsal xii 10-11; originates above base of pectorals, spines
moderately strong, 4th spine longest and about $\frac{3}{5}$ length of head, 12 th spine about $\frac{1}{2}$ the length of 4th and not quite as high as soft rays. Pectorals $1_{\frac{2}{5}}^{2}$ times length of head, reaching to in line with 2nd spine of anal. Ventrals $\frac{t}{5}$ length of head, reach to vent. Anal iii $8-9$; spines moderately strong, the 1st about $\frac{3}{5}$ height of 2 nd, which is the longest, being nearly the height of the soft rays and $\frac{3}{5}$ the height of longest spine of dorsal. Caudal deeply forked, nearly as long as pectorals. Scales feebly denticulated; lat. l. 54-58, lat. tr. $\frac{7-8}{14-15}$.

Colour (of preserved specimens), grey, darker above ; head with a reddish tinge ; dorsal, anal, and ventrals blackish. Longitudinal rows of small black spots on body ; these rows are, above the lateral line, more or less oblique anteriorly and longitudinal posteriorly, below the lateral line in 3 rows, and also about 8 rows of yellow lines occurring ventrally.

Colour, when alive, a bluish pink.
Two specimens, 288 mm ., 290 mm . in length respectively, from Mr. Robinson, Natal.

They differ from $D$. argyrozona, Cus. and Val., and $D$. lineopunctatus, Blgr., in the shorter head, greater length of fins, and smaller eye.

## Dextex preorbitalis, Günth.

(Scotchman.)
Canines fairly strong. Depth of body $2 \frac{2}{3}$ to $2 \frac{4}{5}$ times in total length excluding caudal, length of head 3 to $3 \frac{1}{4}$ times. Snout about $2 \frac{1}{3}$ times diameter of eye, which is slightly greater than the interorbital width and $4 \frac{2}{5}$ to $4 \frac{2}{3}$ times in length of head. Nape of neck gibbose; maxillary reaches to about vertical of anterior margin of eye ; preorbital quadrangular, higher than wide, scaleless and about $1 \frac{3}{4}$ times diameter of eye in height; 11 series of scales between the preorbital and the margin of the preoperculum ; scales on interorbital space; preoperculum covered with scales.

Dorsal xii 10 ; spines moderately strong, 4th spine longest and about $\frac{2}{5}$ length of head. Pectorals nearly as long as the head and reach to origin of anal. Ventrals about $\frac{3}{5}$ length of head, do not reach to vent. Anal iii 8; 2nd spine strongest and about same length as or longer than 3rd. Caudal forked, about $\frac{ \pm}{5}$ length of head. Scales above the lateral line much smaller than those below; lat. l. 60 , lat. tr. A.

Colour (of preserved specimens), numerons small dark dots above
lateral line; 3 dark lines, one on upper border, one across the middle, and one on the lower border of the eye.

Two specimens, 245 mm . and 260 mm . in length respectively, from Mr. Robinson, Natal; the fish is caught by deep-sea boats on the Natal coast.

The specimens agree closely with Günther's D. preorlitalis, allowing for difference in size of fish.

## Gerres longirostris, Günth.

Depth of body 2 to $2 \frac{1}{4}$ times in total length excluding caudal, length of head 3 to $3 \frac{1}{5}$ times. Snout equals diameter of eye, which is $1 \frac{1}{6}$ to $1 \frac{1}{8}$ times in interorbital width and 3 to $3 \frac{1}{8}$ times in length of head. Snout produced slightly, flattened between nostrils; cleft of mouth lateral, upper lip very protractile, maxillary reaches to vertical of anterior third of orbits ; preopercle entire.

Dorsal ix 10 ; spines flexible, 2nd longest, about $\frac{3}{5}$ length of head and slightly arched; spinous portion higher than the soft, last dorsal spine shorter than first soft rays. Pectorals $1 \frac{1}{4}$ to about $1 \frac{1}{3}$ length of head, reach to anal. Ventrals about $\frac{3}{4}$ length of head. Anal iii 7 ; spines moderately strong, 3rd longest or about same length as 2nd and $\frac{t}{5}$ length of longest dorsal spine ; anterior rays slightly shorter, the last two-thirds of the fin being subequal and about $\frac{1}{3}$ the length. Caudal forked, covered with scales. Scales cycloid, comparatively large; lat. l. 46, lat. tr. ${\underset{1}{2}}_{6}^{2}$.

Colour of fresh specimen silvery, with about 9 dark longitudinal stripes, ventral and anal bright yellow.

This fish does not differ much from ( $k$. longirostris, Günth., recorded from the Cape of Good Hope.

Three specimens, 165 mm ., 163 mm ., and 128 mm . in length respectively, the first from Mr. Robinson, Natal, the other two from fishermen at Durban Harbour.

Two species of Gerres from Natal apparently differ from these specimens in length of body, \&c., but are too imperfect for identification.

## Dinoperca queketti, Blgi. (Black-fish.)

Depth of body $2 \frac{2}{5}$ times in total length excluding caudal, length of head 3 times. Snout equal to interorbital width and slightly less than diameter of eye, which is 3 to $3 \frac{1}{4}$ times in length of head. Preoperculum serrated, serræ coarser at the angle, which is rounded and very slightly produced; 2 minute spines on operculum;
maxillary reaches to vertical of middle of orbits, the width of its distal extremity being a little more than $\frac{1}{2}$ diameter of eye; lower jaw projects; nasal orifices wide and close together; gill-rakers about as long as the gill-fringes, 27 on lower part of anterior arch; head entirely covered with scales, maxillary partly covered.

Dorsal xi $17-18$; originating slightly behind base of pectorals; 3rd, 4th, and 5th spines longest, $\frac{3}{10}$ length of head; soft portion of fin higher than spinous and densely scaled, the anterior rays are about $\frac{2}{3}$ length of head, the remainder progressively decreasing, the posterior margin of the fin being vertical. Pectorals about $\frac{4}{5}$ length of head, reaching nearly to origin of anal ; ventrals about the same length. Anal iii 11 ; opposed to soft dorsal and of similar shape; spines moderately strong, 2nd longest, $\frac{1}{3}$ length of anterior soft rays. Caudal slightly emarginate, covered with scales; caudal peduncle $1 \frac{1}{2}$ times as long as deep. Scales ciliated; sc. 84, lateral line indistinct, lat. tr. $\frac{15}{2}$.

Colour (of preserved specimens), the larger specimen dark brown with irregular longitudinal rows of white spots on body and caudal peduncle; the smaller specimen is of a lighter shade, especially on the lower part of the body, and has about 4 oblique transverse bands on the body in addition to the rows of spots.

Two specimens, 199 mm . and 130 mm . in length respectively, from Mr. Robinson, Natal, who states that the fish frequents rocks, grows to a weight of 4 to 5 lbs . or more, and is plentiful in the season.

It differs in some details from $D$. queketti, Blgr., but is apparently the same species.

## Fanily SQUAMIPINNES.

## Chetodon setifer, Bloch.

Depth of body a little over $1 \frac{3}{5}$ times in total length excluding caudal, length of head $3 \frac{2}{5}$ times. Snout $1_{1} \frac{3}{10}$ times diameter of eye, which is $3 \frac{1}{2}$ times in length of head and slightly less than interorbital width. Snout pointed and produced, mouth very small, preopercle entire.

Dorsal xiii 23 ; 5th and 6th rays produced into a short filament; soft portion of fin angular. Pectorals the same length as ventrals, a little over $\frac{3}{4}$ length of head. Anal iii 20 ; 3rd spine longest, over $\frac{1}{2}$ length of head; soft portion of fin angular. Caudal slightly
rounded. Lateral line high and convex, indistinct on caudal peduncle. Lat. tr. $\frac{t}{12}$.

Colour, dark bands passing upwards and backwards on anterior half of the body ; a dark band, narrow on the upper length, passing from crown of head through orbits and across interopercle, wider below eyes ; a black ocellus near upper edge of soft dorsal between 7 th and 12th rays; edge of soft dorsal and of posterior anal rays tipped with black; caudal with 2 vertical lines enclosing a semilunar space.

Two specimens, 119 mm . and 115 mm . in length respectively, from Durban Museum.

This fish is found from the Red Sea, through the Indian seas, to Polynesia (Day).

## Heniochus macrolepidotus, L.

Depth of body $1 \frac{1}{3}$ to $1 \frac{2}{5}$ times in total length excluding caudal, length of head $3 \frac{1}{6}$ to $3 \frac{1}{4}$ times. Snout about $1 \frac{1}{5}$ times diameter of eye, which equals interorbital width and is about $3 \frac{1}{5}$ times in length of head. Anterior profile abruptly elevated, slightly convex between origin of dorsal and nape and concave from thence to point of snout, with a slight protuberance above the eyes; interorbital space convex; snout produced, jaws equal, lips thick, cleft of mouth small, maxillary reaches to vertical of midway between point of snout and anterior margin of orbits ; preoperculum very finely servated, more coarsely so at its angle, which is very slightly produced ; operculum with two flat inconspicuous points.

Dorsal xi 27 ; spines strong, the 4th spine with a filamentous prolongation reaching to end of caudal fin or beyond it ; 5th spine also somewhat elongated and equals or slightly exceeds length of head, 6 th spine about $\frac{3}{4}$ length of head, remaining spines becone gradually shorter. Soft portion of fin rounded, centre rays longest and about the same height as 6 th spine. Pectorals slightly shorter than head. Ventrals $1 \frac{1}{7}$ to $1 \frac{1}{5}$ times length of head and reaching to in line with 2nd spine of anal. Anal iii 18 ; spines strong, the 2nd is strongest and about equal in length to the 3rd, which is about the same height as 6th spine of dorsal ; soft portion of fin pointed, middle rays longest and about the length of the head. Caudal almost straight on its posterior edge and about $\frac{4}{5}$ length of head. Scales ciliated, 5 rows between lateral line and base of 8th or 9th spine of dorsal. Lat. l. 52.

Colour (of preserved specimens), brown ; a dark patch over snout, another between the eyes; a broad dark band extending from base
of first three spines of clorsal in a slight curve downwards, including posterior two-thirds of operculum and base of pectorals, and across abdomen from origin of ventrals to anal, including ventrals; a broad dark band curves downwards and backwards from summit of 5 th to 7 th spines of dorsal to anal, including posterior third of that fin; anal spines dark, anterior two-thirds of fin with a dark edge.

Two specimens, 111 mm . and 114 mm . in length respectively, from Durban Museum.

## Holacanthu's rhomboides, n. sp.

Depth of body $1 \frac{3}{5}$ times in total length exchuding caudal, length of head 4 times. Snout slightly less than interorbital width and $1_{5}^{3}$ times diameter of eye, which is $3 \frac{t}{5}$ times in length of head; preoperculum with posterior border finely serrated, and with a large grooved spine, $\frac{1}{2}$ the diameter of the eye in length, at the angle; nape slightly compressed and gibbose ; a bulge at upper anterior angle of orbits, and a deep indentation from each nostril to orbit; a small spine on each side of snout above upper lip, the lip being very protractile and thick in the centre; lower jaw longer, chin prominent; cleft of mouth small, and oblique when closed.

Dorsal xii 23 ; spines short, embedded in a groove, increasing in length to last spine; anterior soft rays about 4 times the height of the last, the margin of the fin vertical with a rounded angle. Pectorals a little longer than head; ventrals slightly shorter, with the first ray filamentous and about twice the length of the spine, which is strong. Anal iii 22 ; spines short and deeply embedded; soft portion of fin about equal to soft dorsal, with a similar vertical margin and rounded angle. Margin of caudal straight.

Colour (of preserved specimen), uniform dark brown.
Described from one specimen, 234 mm . in length, received from Mr. Robinson, Natal, who states it is a deep-sea fish, and very rare.

A smaller specimen, 114 mm . in length, caught off the breakwater at Port Natal, was also received from Mr. Robinson. It agrees very closely with the above, allowing for the difference in size, and seems to be the immature form of this species. The colour, however, differs considerably, being a dark greenish brown with bright blue crescentic stripes across the body passing, respectively, through the angle of the mouth, anterior and posterior margins of eye, middle of operculum, second third of body, and caudal peduncle; between the last two there is a faint irregular line.

## Drepane punctata, L.

Depth of body $1 \frac{2}{5}$ times in total length excluding caudal, length of head $3_{5}^{2}$ times. Snout twice as long as diameter of eye, which is less than interorbital width and about 4 times in length of head. Profile almost straight from origin of dorsal to apex of a projecting portion between eyes, in front of which is a deep concavity, from which to end of snout almost straight ; snout very protractile ; cleft of mouth oblique, upper lip thick ; preorbital high, about $1 \frac{3}{5}$ diameter of eye; preoperculum with minute serrations on lower limb and angle; a group of 8 barbels behind symphysis of lower jaw arranged in 3 rows, 4 in first row, 2 in second, and 2 behind.

Dorsal ix 22 ; spines strong and curved backwards, 1st very minute, 4th longest, $\frac{3}{5}$ length of head; soft portion of fin much higher than spinous, longest rays being nearly $1 \frac{2}{5}$ length of longest spine; the first soft ray not divided. Pectorals long and falciform, the 6th and 7th rays longest, slightly over twice the length of head and reaching almost to base of caudal. Ventrals over $\frac{t}{5}$ length of head, anterior rays filamentous, spine strong and nearly $\frac{3}{5}$ length of 1st ray. Anal iii 19 ; spines short, the 2 nd longest; anterior rays slightly longer than longest dorsal rays, the 1st ray not divided. Caudal (damaged in specimen). Scales cycloid ; lateral line 50, high and following curve of dorsal, lat. tr. $\frac{1}{3} \frac{5}{2}$.

One specimen, 230 mm . in length, from Mr. Robinson, Natal.
This specimen differs somewhat from $D$. punctata, C. and V ., chiefly in shape of body; the distance also between the commencement of the dorsal and anal is not equal to the length of body to base of caudal, but only to about over the 14th ray of the anal; the profile from the dorsal to the snout is different, there being an elevation in front of the eyes about equal to $\frac{{ }^{3}}{}$ their diameter.

## Scorpis lithorhilus, n. sp. <br> (Stone-fish.)

Depth of body twice in total length excluding caudal, length of head 4 times. Snout equals the diameter of the eye, which is about $1 \frac{1}{2}$ times in interorbital width and 3 to $3 \frac{1}{4}$ times in length of head. Snout very obtuse, with a protuberance before upper anterior angle of each orbit; maxillary reaches to vertical of anterior third of orbits, upper lip thick in the middle.

Dorsal viii 20 ; soft portion slightly falcate, anterior rays elevated and a little over $\frac{4}{5}$ length of head ; spines short and strong, received into a sheath. Pectorals $1 \frac{1}{4}$ in length of head. Ventrals nearly
$\frac{2}{3}$ length of head. Anal iii 23 ; spines short, soft portion of fin similar to soft dorsal fin; anterior ray about $\frac{3}{4}$ length of head. Caudal crescentic. Scales ciliated. Lat. l. 90, lat. tr. $\stackrel{\stackrel{y}{4} \stackrel{4}{4} \text { (approxi- }}{(1)}$ mately).

Colour (of preserved specimen), slate grey, white ventrals, a dark spot on operculum.

One specimen, 205 mm . in length, from Mr. Robinson, Natal; caught among rocks on Natal coast, very common.

## Fanily Muthidie.

## Ureneoides vittatus, Forsk.

Teeth, in a narrow band on each jaw and on palatines, a single row on vomer. Depth of body slightly less than length of head, which is nearly $3 \frac{3}{4}$ times in total length excluding caudal. Snout about $1 \frac{1}{2}$ times in diameter of eye, which is about $\frac{1}{5}$ less that interorbital width and 4 times in length of head.

Two dorsals viii, i 8 ; spines of anterior dorsal weak; lsine minute, 2ncl, 3rd, and th about equal, $1 \pm$ times as high a; second dorsal and $\frac{ \pm}{5}$ length of head ; 6 rows of scales between 1 st and 2 nd dorsals. Pectorals ${ }_{1}^{7}$ io length of head. Ventrals $\frac{3}{5}$ length of head. Anal i 7 ; originates between 3rd and the rays of soft dorsal, spine minute. Caudal (damaged in specimen). Scales ctenoid; lateral line 38 , tubes arborescent on each scale, especially anteriorly. Lat. tr. $\frac{21}{7}$.

One specimen, 159 mm . in length, from Durban Museum.
This fish is found from the Red Sea, East Coast of Africa, seas of India, to the Malay Archipelago and beyond (Day).

## Upeneus queketti, n. sp.

Depth of body 4 times in total length excluding caudal, length of head $3 \frac{1}{2}$ times. Snout a little less than twice diameter of eye, which is about $1 \frac{1}{3}$ times in interorbital width and $3 \frac{1}{5}$ to 4 times in length of head. A well-developed opercular spine; maxillary does not reach to vertical of anterior margin of eye ; barbels do not reach to angle of preoperculum.

Dorsal viii, i 8 ; first 3 spines of anterior dorsal nearly the same length, the 2 nd slightly longer than the others, $\frac{3}{5}$ to $\frac{3}{4}$ length of head; the first two spines are closer together than the others. Second dorsal anteriorly $\frac{2}{3}$ to $\frac{3}{4}$ as high as the first. Pectorals $\frac{2}{3}$ length of head;
ventrals a little longer than pectorals. Anal i 6 ; commences slightly behind origin of 2 nd dorsal. Caudal deeply forked. Six rows of scales between 1st and 2nd dorsals; lateral line 38-39, tubes very arborescent, especially anteriorly; lat. tr. $\frac{2 \pi}{6}$.

Two specimens, 180 mm . and 177 mm . in length respectively, the former from Durban Museum, the latter from Mr. Anderson, taken at Inner Harbour, Durban.

## ? Upeneus indicus, Shans.

Depth of body $3_{1}^{1}$ to $3 \frac{1}{3}$ times in total length excluding caudal, length of head about the same. Snout about $2 \frac{1}{3}$ times diameter of eye, which is $1 \frac{1}{2}$ times in interorbital width and about $4 \frac{1}{2}$ times in length of head. Snout obtuse; jaws equal, maxillary reaches to abont vertical of midway between point of snout and orbits; spine on opercle strong; barbels reach to beyond posterior margin of preoperculum.

Dorsal viii, i 8 ; 1st spine of anterior dorsal minute, 3rd longest nearly $\frac{3}{5}$ length of head. Pectorals about $\frac{7}{3}$ length of head; ventrals $\frac{3}{4}$ length of head. Anal i 7; originates behind second dorsal and is of about same height. Candal (damaged in specimens). Scales in 3 rows between 1st and 2nd dorsals; lat. 1. 29, tubes arborescent, lat. tr. ${ }_{7}^{2 \frac{1}{7}}$.

Colour (of preserved specimens), greenish; with a black blotch between 2nd dorsal and caudal, extending from the lateral line and crossing the back.

Two specimens, 134 mm . and 128 mm . in length respectively from Durban Museum (somewhat damaged and not in a good state for determination).

## Family SPARID风.

Crenidens forskalii, C. and V.
(White Karanteen.)
Teeth, 10 in upper jaw and 12 in lower.
Depth of body $2 \frac{2}{5}$ times in total length excluding caudal, length of head 4 times. Snout $1 \frac{1}{5}$ times diameter of eye, which is $1 \frac{2}{5}$ times in interorbital space and about $3 \frac{1}{4}$ times in length of head. Snout blunt, with a prominent bulge at upper anterior angle of orbits; 3 or 4 rows of scales on cheeks; cleft of mouth small, maxillary reaches about to vertical of posterior nostril.

Dorsal xi 11; spines flexible, 3rd longest and about $\frac{3}{5}$ length of
head; spinous portion of fin higher than soft. Pectorals $1 \frac{2}{5}$ times length of head, but not reaching to anal. Ventrals about $\frac{4}{5}$ length of head. Anal iii 10 ; spines strong, 2nd stronger and a little longer than 3rd, about $\frac{7}{10}$ length of longest dorsal spine. Caudal emarginate. Scales cycloid ; lat. l. 52, lat. tr. $\overline{1} 2$.

Colour (of preserved specimen), silvery, dark longitudinal bands on upper two-thirds of body, dorsal and caudal edged with black.

One specimen, 197 mm . in length, from Mr. Robinson, Natal.
The fish is also found in the Red Sea, seas of India, Sind, and coast of Mozambique (Day).

## Box Salpa, L. (Striped Karanteen.)

Teeth, incisors in upper jaw notched in the centre, in lower jaw triangular with a very slight lateral denticulation. Depth of body $2 \frac{3}{4}$ times in total length excluding caudal, length of head slightly over $\pm$ times. Snout a little over diameter of eye, which is about $1 \frac{1}{2}$ times in interorbital width and $3 \frac{1}{2}$ times in length of head. Snout very obtuse, with a protuberance at upper anterior angle of each eye; cleft of mouth small, lateral, slightly curved; maxillary reaches nearly to vertical of anterior margin of orbits; upper lip projecting, thick in the middle ; preorbital has upper anterior margin slightly produced and its inferior edge slightly emarginate.

Dorsal xi 14 ; spines flexible and received in a groove; spinous portion higher than soft; 5th and 6 th spines longest, nearly $\frac{1}{2}$ length of head. Pectorals nearly as long as the head. Ventrals $\frac{3}{4}$ length of head. Anal iii 13 ; spines weak; 3rd longest, about $\frac{2}{3}$ length of adjacent soft ray and $\frac{1}{2}$ length of longest dorsal spine; spines and rays received in a groove. Caudal forked. Scales slightly ciliated; lat. 1. 73, lat. tr. $\frac{1}{1 / 6}$.

Colour, about seven longitudinal white lines (in preserved specimen), black spot in axil of pectorals.

One specimen, 173 mm . in length, from Mr. Robinson, Natal.
This fish is well known at the Cape, where it is called the "Bamboo fish." It occur's in the Mediterranean and the Canary Islands, and it is of interest to find it in a region where so many typical Indian forms occur. The Cape specimens when alive are greenish above and silvery below, with yellow longitudinal bands.

## Dipterodon Capensis, C. and V.

Depth of body nearly twice the total length excluding caudal, length of head a little over $3 \frac{1}{2}$ times. Snout equal in length to
interorbital width and about $1 \frac{1}{6}$ times diameter of eye, which is nearly $3 \frac{1}{2}$ times in length of head. Posterior margin of preoperculum serrated; a protuberance at upper anterior angle of orbits; snout obtuse; cleft of mouth small and slightly oblique, maxillary reaches to vertical of anterior margin of orbits; upper lip thick; cheeks covered with scales.

Dorsal x 20; spines strong and received into a sheath at base; 4 th and 5th longest, nearly $\frac{1}{2}$ length of head, succeeding spines decreasing. The anterior rays of soft dorsal are about the same length as the longest spines, the remainder shortening successively and again lengthening a little, making the posterior margin of the fin emarginate. Pectorals about ${ }_{10}{ }^{\prime \prime}$ length of head, reaching vertical of vent; rentrals slightly less than pectorals. Anal iii 13 ; second spine strongest and a little longer than 3 rd, $\frac{3}{4}$ length of longest dorsal spine. Caudal forked, covered with fine scales. Scales ciliated; lat. l. about 80, lat. tr.

Colour (of preserved specimen), dark grey, fins black. The colour of fresh specimens of this fish, which occurs abundantly at the Cape, where it is known locally as "Galjoen," varies very much; sometimes the body is very light and silvery, when a series of broad bands may appear across it-usually, however, the body is dark, without bands ; the soft dorsal and anal also have a dark patch.

One specimen, 196 mm . in length, from Mr. Robinson, Natal.

## Canthares eneus, n. sp. <br> (Bronze Bream.)

Depth of body $2 \frac{1}{5}$ times in total length excluding caudal, length of head 4 times. Snout equal to interorbital width and nearly twice the diameter of the eye, which is $4_{1^{\prime \prime}}^{1 \prime}$ times in length of head; snout obtuse, with a bulge at upper anterior border of the orbits; mouth small, cleft slightly curved; maxillary reaches to rertical of posterior nostril, which is rery elongate and situated before upper angle of orbits; 8 series of scales between preorbital and preopercular limb ; preorbital rather longer than wide, concealing the maxillary bone; posterior margin of preoperculum straight, angle rounded.

Dorsal xi 11 ; originates above base of pectorals, spines flexible; 5 th spine longest, nearly $\frac{1}{2}$ length of head; soft portion of fin lower than spinous. Pectorals $1_{10}^{3}$ times length of head, reach almost to origin of anal, 5th ray longest, base of fin covered with scales. Ventrals nearly length of head and with a moderately strong spine $\frac{\ddot{3}}{3}$ the length of adjacent ray; reach nearly to vent. Anal iii 10 ; spines
strong, 1 st about $\frac{1}{2}$ length of 2 nd, which is about the same height as 3rd, and nearly $\frac{3}{4}$ length of longest dorsal spine. Scales of moderate size, faintly ciliated; lat. l. 82, lat. tr. $\frac{10}{2}$.

Colour (of preserved specimen), dark brown with numerous white longitudinal lines.

One specimen, 311 mm . in length, from Mr. Robinson, Natal; caught amongst rocks.

## Cantharus natalensis, n. sp. (Hottentot.)

Depth of body $2 \frac{3}{10}$ times in total length excluding caudal, length of head 4 times. Snout $1 \frac{1}{3}$ times diameter of eye, which is $1 \frac{1}{2}$ times in interorbital width and about $3 \frac{3}{4}$ times in length of head; profile of head rounded, with a protuberance at anterior upper angle of each orbit; cleft of mouth small, oblique ; maxillary reaches to vertical of posterior nostril, which is elongate; lower jaw slightly projecting, chin prominent. There are about 12 series of scales between preorbital and preopercular border; preorbital longer than wide, emarginate, angles rounded.

Dorsal xi 12 ; originates above base of pectorals, spines flexible; 4 th spine longest, nearly $\frac{1}{2}$ length of head; anterior soft rays about equal to adjacent spine, lengthening posteriorly to nearly length of 4th spine. Pectorals $1_{\frac{1}{5}}$ times length of head, reach to origin of anal, base scaly, lower rays branched. Ventrals about $\frac{t}{5}$ length of head, reach to vent. Anal iii 11; 2nd spine strongest and slightly less than 3 rd, $\frac{3}{5}$ length of longest dorsal spine. Scales very faintly ciliated; lat. l. 88, lat. tr. $\frac{8 \frac{1}{2}}{21}$; tubes of lateral line bifurcated, especially anteriorly.

Colour (of preserved specimen), dark above, silvery below.
This fish may be distinguished, among other things, by the great length of the 4 th dorsal spine from the Cape Hottentot (C. blochii), which has the 4 th spine $\frac{1}{3}$ length of head.

One specimen, 310 mm . in length, from Mr. Robinson, Natal. Fish taken by deep-sea fishermen, not so common as other varieties.

## Sargus cervinus, Lowe.

Teeth, molars in two series on each jaw ; incisors elongate, implanted in an oblique direction, $\frac{12}{8}$. (The actual numbers of teeth in the specimen are $\frac{11}{7}$, but there is clearly one missing from the left upper, and one from right lower jaw.) Depth of body twice in total length excluding caudal, length of head $3 \frac{1}{3}$ times. Snout rather pro-
duced, $2 \frac{1}{4}$ times diameter of eye, which is 5 times in length of head and $\frac{1}{2}$ interorbital width ; lips very thick and fleshy, maxillary reaches to vertical of posterior nostril, which is elongate and close to upper anterior angle of eye; suprascapula much larger than a scale and indistinctly striated, a series of striated scales curves upwards from it to the occiput, and a similar series from upper angle of preoperculum to crown of head.

Dorsal xi 13 ; spines flexible, and received into a groove at the base ; 4th spine longest, $\frac{2}{5}$ length of head; soft portion of fin much lower than spinous and with base of rays covered with scales. Pectorals $1 \frac{1}{4}$ times length of head, the 5th and 6th rays produced and reaching much beyond origin of anal, to about in line with loase of 3rd ray. Ventrals about $\frac{1}{2}$ length of pectorals, reaching to vent. Anal iii 11; 2nd spine strongest and longest, $7_{10}^{7}$ length of longest dorsal spine, base of soft portion of fin covered with scales. Caudal emarginate, covered with scales. Scales cycloid; lat. 1. 62, and 6 on caudal fin in addition, lat. tr. ${ }_{15^{\circ}}^{10 \frac{2}{2}}$

Colour, seven broad dark cross-bands on body, their breadth about equal to the distance between them; dorsal, anal, and ventrals blackish.

One specimen, 286 mm . in length, from Mr. Robinson, Natal.

## Lethrinus scoparius, n. sp.

(Scavenger.)
Teeth, 4 small canines in front on either jaw ; lateral teeth in jaws near front pointed, posteriorly the last few with rounded crowns and larger in upper jaw. Depth of body $2 \frac{2}{3}$ times in total length excluding caudal, length of head 3 times. Snout $2 \frac{1}{6}$ times diameter of eye, which is about $1 \frac{1}{4}$ times in interorbital width and $4 \frac{1}{6}$ times in length of head. Snout pointed ; cleft of mouth lateral ; maxillary reaches to vertical of anterior nostril ; operculum with a flat, broad, inconspicuous spine; preorbital abont $1 \frac{1}{2}$ times diameter of eye in height, concealing maxillary bone; head, lower jaw, and preoperculum with numerous fine pores ; nape slightly gibbose, profile of head descending obliquely in a nearly straight line to point of snout.

Dorsal $\times 9$; spines flexible, increasing in length to 3rd, which is about $\frac{2}{5}$ length of head and slightly longer than longest ray. Pectorals, first rays longest, nearly the length of the head and reaching to in line with 3rd spine of anal. Ventrals nearly $\frac{2}{3}$ length of head and reaching to rent. Anal iii 8 ; spines moderately strong, 3rd slightly longer than $2 n d$, nearly as long as soft rays and about $\frac{2}{3}$
length of longest dorsal spine. Caudal forked, with pointed lobes, the upper of which is longer. Scales feebly ciliated; Lat. 1. 47, lat. tr. ${ }_{19}^{7}$.

Colour (of preserved specimen), scales of body yellowish, head dark brown with a few dark dots on cheek, and short bands less than three diameters of the eye-one under eye and 2 radiating from the eye anteriolly.

One specimen, 220 mm . in length, from Mr. Robinson, Natal.

## Pagrus nigripinnis, Blgr. (Mussel-crusher.)

Teeth, 4 strong canines on each jaw ; a row of large molars. Depth of body nearly $2 \frac{1}{3}$ times in total length excluding candal, length of head $2 \frac{3}{4}$ times. Snout $2 \frac{1}{7}$ times diameter of eye, which is nearly $1 \frac{2}{3}$ times in interorbital width and 5 times in length of head. Interorbital space broad and flat, a protuberance before eyes at upper anterior angle of orbits; preoperculum finely denticulated, angle rounded; operculum with a short strong spine; preorbital emarginate, least width $1 \frac{1}{5}$ times diameter of eye ; interorbital region, occiput, cheek and gill-cover densely covered with small, strongly imbricated scales; 16 series of scales on the cheek; jaws equal, maxillary reaches to vertical of posterior nostril.

Dorsal xii 10 ; originates above base of pectorals, spines strong, $31 \cdot d$ and 4 th longest, a little more than $\frac{1}{3}$ length of head and about $\frac{t}{5}$ length of longest soft rays; base of soft portion of fin covered with scales for about $\frac{1}{4}$ of the height. Pectorals $\frac{9}{10}$ length of head, reach to in line with base of 2 nd anal spine. Ventrals nearly $\frac{2}{3}$ length of head. Anal iii 8; 2nd spine very strong and longer than 3rd, $\frac{1}{33}$ length of head, nearly equal in length to longest dorsal spine and $\frac{1}{5}$ length of anterior soft rays; the whole fin embedded in a scaly sheath for $\frac{1}{3}$ height of rays. Candal forked, upper lobe rather longer than lower, base of fin covered with scales. Scales feebly ciliated; lat. l. 62, lat. tr. $\frac{10}{21}$.

Colour (of preserved specimen), dark brown above, whitish below; all fins black.

One specimen, 297 mm . in length, from Mr. Robinson, Natal.
This appears to be a young specimen of P. nigripinnis, Blgr., the type of which was 400 mm . in length. The " Mussel-crusher" grows to a very large size (three feet or so in length), and is apparently the same fish as the "Bischop" or "Poeskop" of Cape fishermen, a name which, however, they also apply to a large Sargus, which also
occurs in Natal and is there called the "Brusher." Castelnau describes a " Poeskop" from Kalk Bay as Chrysophrys nasutus, n. sp., which may be the fish here described. The "Brusher" is probably his Pagrus durbanensis, but his descriptions are not sufficient to allow of certain identification.

## Chrysophrys robinsoni, n. sp.

## (Mud Bream.)

Teeth, 6 canines in each jaw; molars in 3 rows in the lower, 4 or 5 in the upper jaw. Depth of body $2 \frac{1}{6}$ times in total length excluding caudal, length of head $3 \frac{1}{3}$ times. Snout about $1 \frac{3}{4}$ times diameter of eye, which is a little more than $1 \frac{1}{2}$ times in interorbital width and $4 \frac{3}{8}$ times in length of head. Nape gibbose, a slight protuberance between the orbits; preorbital $\frac{1}{2}$ diameter of eye in height, lower border emarginate, and twice as long as high; 6 rows of scales between preorbital and angle of preoperculum; cleft of mouth lateral, maxillary reaches to vertical of anterior third of eye, upper lip thick; opercular spine small and inconspicuous.

Dorsal xi 11 ; originates above base of pectorals, spines strong and received in a groove; 4th spine longest, a little over $\frac{2}{5}$ length of head and about the same height as longest soft rays. Pectorals a little longer than head and reach to origin of anal. Ventrals about $\frac{2}{3}$ length of head. Anal iii $9 ; 2$ nd spine very strong, grooved and very flattened (about $\frac{1}{2}$ diameter of eye), and $1 \frac{1}{4}$ times the length of the longest dorsal spine. Candal emarginate. Scales feebly ciliated; lat. l. 43 , lat. tr. $\frac{5}{11}$.

Colour (of preserved specimen), dark, almost black.
Described fiom one specimen, 234 mm . in length, from Mr. Robinson, Natal: the fish is said not to exceed 2 lbs. in weight.

## Chrysophrys estuarius, n. sp. (River Bream.)

Teeth, 6 canines on each jaw ; molars in 4 or 5 rows on upper, 3 rows on lower jaw. Depth of body $2 \frac{1}{3}$ to $2 \frac{2}{5}$ times in total length excluding caudal, length of head 3 to $3 \frac{1}{5}$ times. Snout $1 \frac{1}{2}$ to $1_{\frac{1}{5}}$ times diameter of eye, which is $1 \frac{1}{5}$ to $1 \frac{1}{2}$ times in interorbital width and $4 \frac{1}{2}$ to 5 times in length of head. Snout straight, a slight inward curve in dorsal profile behind eye; preorbital emarginate, slightly less than or equal to diameter of eye in height; 5 rows of scales between preorbital and angle of preoperculum; cleft of mouth lateral, maxillary reaches to vertical of anterior third of orbits; opercular spine small and inconspicuous.

Dorsal xi 11 ; spines strong, received in a groove, each alternate one strongest and flattened ( 4 mm .) on one side; 4 th spine longest, slightly less than $\frac{1}{2}$ length of head; spinous portion of fin higher than the soft. Pectorals a little longer than head, 5th and 6th rays longest, reach to origin of anal. Ventrals $\frac{3}{4}$ to $\frac{4}{5}$ length of head; spine fairly strong, compressed and nearly $\frac{2}{3}$ length of 1 st soft ray. Anal iii 8; 2nd spine strong, longer than 3rd and about same length as longest dorsal spine. Candal emarginate. Scales ciliated, but very feebly above lateral line; lat. l. $44-46$, lat. tr. $\frac{+}{1}$.

Colour (of preserved specimen), whitish, dorsal edged with black, a black patch at commencement of lateral line.

Three specimens, 160 mm ., 218 mm ., 226 mm . in length respectively, from Mr Robinson, Natal.

## Chrysorhers natalensis, Cast.

(Silver Bream.)
Teeth, 6 canines on each jaw; molars in 4 rows on upper, 3 rows on lower jaw, the last teeth of inner series being the largest. Depth of body $2 \frac{1}{8}$ times in total length excluding caudal, length of head $3 \frac{2}{5}$ times. Snont about $2 \frac{1}{4}$ times diameter of eye, which is $1 \frac{2}{3}$ times in interorbital width and $4 \frac{1}{3}$ times in length of head. Dorsal profile is an uninterrupted and gentle curve from end of snout to beginning of dorsal fin; a protuberance above anterior upper angle of orbits; upper jaw projects slightly beyond lower; maxillary reaches to vertical of anterior margin of orbits; preorbital slightly emarginate, height $1 \frac{1}{3}$ times diameter of eye, 6 series of scales between preorbital and angle of preoperculum ; spine on opercle small and inconspicuous.

Dorsal xi 13 ; spines Hexible, received into a sheath; 4th spine longest, nearly $\frac{1}{2}$ length of head and longer than longest soft rays. Pectorals $1_{10}^{3}{ }^{3}$ times length of head, 5th and 6th rays longest, reach to vertical of commencement of soft anal. Ventrals about $\frac{4}{5}$ length of head, scarcely reach to vent. Anal iii 11 ; spines moderately strong, 2nd and 3rd about equal, about same length as longest rays and $\frac{5}{5}$ length of longest dorsal spine. Caudal forked, lobes covered with small scales. Scales cycloid above lateral line and feebly ciliater below. Lat. l. 62, lat. tr. $i_{15}^{7 \frac{1}{5}}$.

Colour (of preserved specimen), pale brown, margin of dorsal dark, a black band between and over eyes.

One specimen, 280 mm . in length, from Mr. Robinson, Natal.
It is probably the C. natalensis of Castelnau, but his description is insufficient.

## Chrysophrys anglicus, n. sp. (Englishman.)

Teeth, canines four, rather poorly developed, on upper and lower jaw ; 3 large molars behind the middle of each jaw forming an outer row; in the upper jaw a second irregular row of smaller molars and internal to this numerous very small molars. Depth of body $2 \frac{1}{5}$ times in total length excluding caudal, length of head $3 \frac{1}{4}$ times. Snout a little more than twice diameter of eye, which is $1 \frac{3}{4}$ times in interorbital width and nearly $4 \frac{3}{4}$ times in length of head. Nape gibbose, a very pronounced bulge on upper anterior angle of orbits, profile from origin of dorsal fin to orbits slightly convex and descending very abruptly from orbits to point of snont. Preorbital nearly as high as wide, its least depth about $1 \frac{3}{5}$ times diameter of eye, and slightly emarginate on posterior third; jaws about equal and slightly produced, maxillary reaches nearly to vertical of middle of orbits; vertical limb of preoperculum smooth or very finely serrated; operculum with an inconspicuous spine; 13 or 14 series of scales betreen preorbital and angle of preoperculum; interorbital space rounded and covered with scales.

Dorsal xii 10 ; spines flexible, 3rd spine longest and nearly $\frac{1}{2}$ length of head, succeeding spines shortening to 12th, which is a little more than $\frac{1}{2}$ as high as the 3 rd and about $\frac{1}{5}$ the height of adjacent soft ray; longest soft rays about $\frac{2}{3}$ the height of longest spine. Pectorals falcate, $1 \frac{1}{6}$ times length of head and reaching to in line with first ray of anal. Ventrals over $\frac{3}{5}$ length of head and reaching to rent. Anal iii 8 ; 2nd spine strongest, about same length as 3 rd and $\frac{3}{3}$ the height of longest spine of dorsal ; soft rays about same lieight as 3rd anal spine, shortening posteriorly. Caudal forked (damaged in specimen). Scales feebly ciliated; lat. 1. 66, lat. tr. $\frac{11}{21}$.

Colour. Mr. Robinson kindly supplied the following particulars: "Silvery pinkish. Several broad, rather indistinct darker bands vertically-tail pale pink, dorsals pinkish tinged with green, pectorals pinkish, ventrals darker pink, anal pinkish tinged with green. A red vertical stripe at base of pectorals, a red spot on side at base of pectorals, head dark red in front above eyes, a whitish bony knob in front of eyes, under edge of lower jaw purplish, upper jaw darker red in front, greenish tinge on gill-covers, eyes black pupil with orange iris."

One specimen, 397 mm . in length, from Durban.
This species approaches Chrysophrys gibbiceps (the red stump-
nose) in general shape, especially of the head region. It can be distinguished from it by the difference in the number of scales.

## Chrysophrys dentatus, n. sp.

(Dane.)
Teeth, 4 incisors in upper jaw projecting forward, 6 in lower jaw, of which the 4 centre ones project like the upper incisors, the 2 outer being somewhat recurved and canine-like; immediately behind them are small pointed teeth which soon pass into rounded molars, of which there are about 4 rows, further back there is one row of large rounded molars. Depth of body $2 \frac{1}{2}$ times in total length excluding caudal, length of head 3 times. Snout twice diameter of eye, which is about $1 \frac{1}{t}$ times in interorbital width and 4 times in length of head. Preorbital $1 \frac{5}{8}$ times diameter of eye in height, and almost entirely covering the maxillary bone; cleft of mouth large, slightly oblique, maxillary reaches to vertical of anterior margin of orbits; lower jaw projects; 11 series of scales between preorbital and margin of preoperculum; profile of head from occiput to point of snout nearly straight, obliquely descending, with a very slight bulge in front of orbits.

Dorsal xiii 11 ; spines flexible; 3rd and 4 th longest, abont $\frac{1}{3}$ length of head. Pectorals slightly longer than length of head, the 4 th and 5 th rays longest, reaching beyond origin of anal. Ventrals about $\frac{3}{5}$ length of head, reach to rent. Anal iii 9 ; spines moderately strong (tips of 2nd and 3rd broken in specimen). Caudal emarginate. Scales ctenoid; lat. l. 73, lat. tr. $\frac{1}{2} \frac{2}{3}$.

Colour (of preserved specimen), whitish, with a dark band between eyes.

One specimen, 205 mm . in length, from Mr. Robinson, Natal ; fish captured by deep-sea boats.

Chrysophrys puniceus, n. sp. (Slinger.)
Teeth, 4 conical canines on upper, 6 on lower jaw; molars in 4 rows on upper jaw, outer large, inner small and in indistinct rows.

Depth of body twice in total length excluding caudal, length of head 3 times. Snout $1 \frac{4}{5}$ times diameter of eye, which is $1 \frac{1}{t}$ times in interorbital width and 4 times in length of head. Nape very gibbose, profile of head obliquely descending, a slight protuberance between orbits; preorbital $1 \frac{2}{5}$ times diameter of eye in height, longer than wide, and partly covering maxillary bone; operculum with a small
spine; cleft of mouth oblique, maxillary reaches to anterior margin of orbits; snout obtuse ; cheek and preopercle covered with scales.

Dorsal xii 10 ; spines flexible, 4th spine longest, $\frac{1}{2}$ length of head; spinous portion of fin higher than soft. Pectorals $1_{\bar{亏}}^{2}$ times length of head, 4 th and 5th rays being produced, reach to 3rd ray of anal. Ventrals $\frac{1}{5}$ length of head, reach about to vent. Anal iii $9 ; 2 n d$ spine strongest and longest, nearly $\frac{3}{4}$ length of longest dorsal spine. Caudal forked. Scales cycloid; lat. 1. 50, lat. tr. is.

Colour, pink, a black spot on axil and black streak below eye.
One specimen, 230 mm . in length, from Mr. Robinson, Natal; taken by deep-sea boats.

## Cyphosus fuscus, Lacép.

Depth of body $2 \frac{1}{5}$ times in total length excluding caudal, length of head $3 \frac{3}{4}$ times. Snout $1_{5}^{1}$ times diameter of eye, which is $1 \frac{3}{5}$ times in interorbital width and nearly 4 times in length of head; preoperculum slightly sermated at angle, which is rounded.

Dorsal xi 12 ; spines low, increasing in length posteriorly, the 4th to the 7 th being longest, about $\frac{1}{5}$ the depth of the body and about the same length as the last and longest soft rays. Anteriorly the soft portions of both dorsal and anal fins are lower than the spinous. Pectorals nearly $\frac{2}{3}$ length of head; ventrals slightly less than pectorals. Anal iii 11 ; Brd spine longest, nearly the length of the longest dorsal spine. Caudal (damaged in specimen). Scales ctenoid; lat. l. 69 scales were counted over the lateral line, the pierced scales were indistinct, lat, tr. ${ }_{21-22}^{12}$.

Colour (of preserved specimen), uniform brown.
One specimen, 146 mm . in length, from Durban Museum.

## Family CIRRHITIDA.

## Cirrhitichthys maculatus, Lacép.

Teeth, in villiform bands on both jaws with an outer rather enlarged row on the upper and 4 or 5 strong, curved, conical teeth on each side of the lower jaw ; a triangular villiform patch on vomer and band on palatines. Depth of body equals length of head and is 3 times in total length excluding caudal. Snout about $1 \frac{3}{4}$ times diameter of eye, which is a little greater than interorbital width and

45 times in length of head. Vertical limb of preoperculum finely serrated, angle rounded entire and slightly produced; greatest depth of preorbital equals diameter of eye; a well-developed heavily fringed tentacle on anterior nostril ; maxillary reaches to vertical of middle of orbits; interorbital space concave with a strong bony ridge over each eye produced posteriorly into a smooth bony excrescence above the preoperculum; profile of head depressed behind orbits.

Dorsal $\times 11$; commences above base of pectorals, spines strong, 3rd to 6th subequal and about $\frac{2}{5}$ length of head, the following spines decreasing slightly; anterior soft rays $1 \frac{1}{2}$ times length of the adjacent spine. Pectorals $7+$ viii. ; the two upper simple rays are longest and nearly $\frac{3}{4}$ length of head. Ventrals a little over $\frac{1}{2}$ length of head. Anal iii 6 ; 2nd spine strongest and longest, a little higher than longest spines of dorsal ; anterior soft rays $1 \frac{1}{4}$ times as high as longest rays of dorsal. Caudal (damaged). Scales fairly large, cycloid, and also cover posterior margin of opercles. Lat. 1. 40 , lat. tr. $1 \begin{aligned} & \text { +1. } \\ & 10\end{aligned}$

Colour (of preserved specimen), dark brown, lighter underneath ; body spotted with dark brown, vertical fins with irregular bars of dark brown.

One specimen, 165 mm . in length, from Mr. Robinson, Natal; caught at Winkel Spruit.

## Family SCORPÆNID天.

Pterois miles, Benn.
Teeth, a band of villiform teeth on each jaw, a deep chevronshaped band on vomer. Depth of body $3 \frac{1}{5}$ times in total length excluding caudal, length of head over $3 \frac{1}{3}$ times. Snout twice diameter of eye, which nearly equals interorbital width and is $4 \frac{1}{2}$ times in length of head. Interorbital space very concave; a bony ridge on each orbit with a blunt spine at posterior end; a bladelike spine on occipital ridge on each side of nape; a spinate ridge from upper posterior angle of eye to commencement of lateral line; snout with a bony knob in centre nearer to point than to orbits, the anterior nostrils, each of which has a flap, being at its base on the posterior side; 3 blunt spines on lower margin of preorbital, from which a bony ridge extends to eye and a spinate ridge crosses the cheek and extends to upper spine of preoperculım, which has 2
smaller spines below it; opercular spine only slightly developed; orbital tentacles small; tentacles on lower edge of preorbital, the lower one more developed, and one or two tentacles on lower margin of preoperculum.

Dorsal xii, i 11 ; interspinous membranes deeply emarginate, spines lower anteriorly, the first 2 close together, 1st spine a little more than $\frac{2}{5}$ length of head, the succeeding ones increasing to the 6 th or 7 th, which are subequal and $\frac{?}{10}$ length of head; the last 2 spines are much shorter, the 12th being about $\frac{3}{3}$ the height of the 6th or 7th, and forming a notch between the spinous and soft-rayed portions of the fin. The middle soft rays are about $\frac{1}{10}$ higher than longest spines; all the rays are split. Pectorals 13 ; reach to posterior end of soft dorsal ; rays of upper half of fin have membranes deeply cleft and are $1 \frac{4}{5}$ times length of head. Ventrals about $\frac{1}{6}$ longer than head and reach to origin of anal. Anal iii 7 ; spines moderately strong, 3rd longest and about same height as 1 st spine of dorsal; soft rays split, middle ones about same height as soft dorsal. 'Caudal about $\frac{1}{5}$ longer than head, rounded, rays split, and middle ones longest. Scales on lase of pectorals. Lat. tr. $\frac{11}{1 \frac{1}{7}}$.

Colour (of preserved specimen), greyish brown, with vertical dark bands with narrower and lighter intermediate ones, three or four brown bands radiating downwards from eye, three or four extending across nape and head. Pectorals and ventrals blackish; vertical fins without black spots.

One specimen, 188 mm . in length, from Mr. Robinson, Natal.
A second specimen from Natal agrees with the above excepting that (1) the soft vertical fius have black spots ; (2) the pectorals extend to the root of the caudal ; (3) soft dorsal and anal are rather longer; (4) soft dorsal has 10 rays, anal has 6 . In other respects they resemble each other so closely that we have considered them as specifically the same.

## Apistus faurei, n. sp.

Depth of body $3 \frac{1}{4}$ times in total length excluding caudal, length of head a little less than three times. Snout equals diameter of eye, which is 3 times in interorbital width and slightly over 4 times in length of head. Eyes directed slightly upwards and outwards; preorbital produced on each side of point of snout with a large spine longer than diameter of eye and 2 smaller ones anteriorly on each side; two lines from point of snout passing backwards between eyes and diverging on occiput to nape; preoperculum with a strong spine on posterior margin and 3 smaller ones at the angle; operculum
with 2 spines, a temporal ridge with spines; mouth wide, cleft slightly oblique, lower jaw slightly longer than upper, maxillary reaches to vertical of middle of orbits; a slender barbel at symphysis of lower jaw, with one on each mandible a little behind it.

Dorsal xv 9 ; spines slender, first 2 about equal, increasing gradually to 10 th, which is about $\frac{3}{5}$ length of head, then decreasing to 14 th which is about $\frac{t}{5}$ the height of the last spine; anterior soft rays longest and about same length as longest spine. Pectorals about $1 \frac{2}{5}$ times length of head, reach to vertical of last soft ray of anal ; the single appendage reaches nearly to vent, and is almost the length of the ventrals, which are about $\frac{x}{5}$ length of head. Anal iii 7; spines flexible, 3rd longest and about $\frac{4}{5}$ length of adjacent ray, which about equals the height of longest dorsal spine. Caudal rounded. Scales cycloid.

Colour (of preserved specimen), white, a black spot between 1st and 2nd and 9 th to 12 th spines of dorsal, three crossbars over soft dorsal, and four on caudal, extremity of pectorals black.

One specimen, 107 mm . in length, procured by the ss. Pieter Faure from off Umhlanga River mouth, $2 \frac{1}{2}$ miles, in shrimp trawldepth 22 to 26 fms. Fine sand.

## Minous superciliosus, n. sp.

Depth of body nearly 3 times in total length excluding caudal, length of head $2 \frac{2}{3}$ times. Snout equals diameter of eye, which is about 3 times in length of head; interorbital width $\frac{t}{5}$ diameter of eye; maxillary reaches to vertical of anterior third of orbits; preorbital very rugose, armed on each side with a strong sharp spine nearly $\frac{3}{4}$ diameter of eye in length, with a small one at its base; preoperculum with strong coarse teeth on lower margin and a strong spine, the same length as preorbital one, at the angle ; temporal and occipital ridges and border of orbits spinate and rugose ; interorbital space with a deep longitudinal groove, the edges of which are spinulose ; a long tentacle over each eye and about half its diameter in length, 2 or 3 smaller tentacles on each side near the base of this tentacle; cleft of mouth slightly oblique, lower jaw projects and has a fringe of smail barbels underneath each mandible, the posterior barbel on each side being longest and about ${ }_{5}^{2}$ diameter. of eye.

Dorsal xi 12 ; originates a little in front of vertical of end of preopercular spine and extends to base of cardal, to which it is
joined by a membrane; spines slender, membranes deeply cleft; 1st spine minute, 2nd slightly eurved backwards and about equal with the succeeding, length a little over $\frac{2}{5}$ length of head; ends of spine free, the lower parts, especially posteriorly, and the whole of the soft rays enclosed in a skinny membrane. Pectorals almost as long as head, broad, and reaching to the vertical of the base of the 4th ray of dorsal; a single free ray below the pectoral fin $\frac{7}{10}$ of its length. Ventrals $\frac{7}{10}$ length of head, last ray attached to the body by a soft membrane. Anal ii 10 ; spines not well developed and together with soft rays enclosed in a skinny membrane, the tips of anterior rays free. Caudal slightly rounded. Body naked.

Colour (of preserved specimen), about seven broad brown bands run transversely across upper part of body; a black patch behind distal end of dorsal spines; pectorals with many large brown spots. The markings on this fish are very red when it is alive.

One specimen, 81 mm . in length, procured by the ss. Pieter Faure in shrimp trawl, 26 fins., Amatikulu Conical Hill NW. $7 \frac{1}{2}$ miles.

## Fanily KURTIDe.

Pempheris molucca, C and V.
Depth of body slightly more than twice in total length excluding caudal, length of head 4 times. Interorbital width $1_{\frac{2}{5}}^{2}$ times in diameter of eye, which is 2 times in length of head. Preoperculum with strong denticulations at angle.

Dorsal vi 9 ; spines weak, increasing in length to the last, which is about $\frac{1}{2}$ the length of the head and about $\frac{2}{3}$ the height of anterior soft rays; the soft portion of the fin decreases in height posteriorly. Pectorals nearly as long as head. Ventrals about $\frac{1}{2}$ length of head, spine moderately strong. Anal iii 41 ; spines weak, 1st and 2nd small, 3rd about $\frac{1}{2}$ length of anterior rays. Caudal (damaged in specimen). Lateral line almost straight, running parallel and close to dorsal fin in upper seventh of body. Lat. l. 55.

Colour (of preserved specimen), uniform whitish, with black mark at top of soft dorsal.

One specimen, 145 mm . in length, from Durban Museum.

## Family POLYNEMIID风.

Polynemus sextarius, Bl.
Teeth, villiform in jaws, and in a band on vomer and palatines. Depth of body 3 to $3 \frac{1}{5}$ times in total length excluding caudal, length of head $3 \frac{2}{5}$ to $3 \frac{3}{5}$ times. Snout $\frac{2}{3}$ to $\frac{4}{5}$ diameter of eye, which is about equal to the interorbital width and 3 to $33^{3}$ times in length of head; height of head about $\frac{4}{5}$ its length, width $\frac{2}{5}$ its length. Snout produced beyond mouth, which is under eye, upper jas overlaps lower, maxillary extends about $\frac{1}{2}$ diameter of eye behind posterior margin of orbits and is about $\frac{2}{5}$ length of head ; vertical margin of preoper culum serrated, with a strong tooth above its rounded, produced, but entire angle; a short strong inconspicuous spine on shoulder at commencement of lateral line.

Dorsal viii, i 12-13; spines weak and somewhat filamentous, 1st spine of anterior dorsal minute, 3rd longest and abont $\frac{f}{5}$ length of head those following rapidly decrease; a series of small scales ascend behind each spine. Anterior rays of soft dorsal about $\frac{1}{6}$ higher than longest spines of the 1st; upper edge of fin rather concave. Pectorals $14+$ vi., upper rays mbranched and $\frac{3}{4}$ to $\frac{7}{5}$ length of head ; uppermost appendage longest and reaches to middle or tip of ventrals, which are from $\frac{1}{2}$ to $\frac{3}{5}$ length of head. Anal iii 12-13; base about same length as soft dorsal, to which it is similar but not so high ; 1st spine minute, 3rd longest and about twice the height of the 2nd and $\frac{1}{2}$ as high as adjacent ray. Caudal deeply forked, length $1 \frac{1}{7}$ to $1 \frac{1}{3}$ times length of head; height of free portion of peduncle about equals its length, which is $\frac{1}{2}$ to nearly $\frac{2}{3}$ length of head. Lat. 1. 46-50, lat. tr. $\frac{5}{10}$.

Colour (of preserved specimens), yellowish white with minute black dots over body and fins; a large dark spot consisting of two parallel serrated lines near commencement of the lateral line.

Fifteen specimens; the largest, 135 mm . in length, from Mr. Robinson, Natal; the others, ranging in length from 70 mm . to 90 mm. ., caught by Pieter Faure (ss.) in shrimp trawl, in 24 fms ., South Head Tugela River N. by W. $4 \frac{1}{2}$ miles.

Polynemus teniatus, Günth.
Teeth, villiform, a small nearly oval patch on vomer, a cuneiform band broadest anteriorly on palatines. Depth of body equals length
of head, and is $3 \frac{2}{5}$ times in total length, excluding caudal. Snout nearly equals diameter of eye, which is $1 \frac{1}{7}$ in interorbital width and $4 \frac{1}{5}$ times in length of head. Interorbital space convex; eye covered with an adipose membrane ; height of head equals $\frac{3}{4}$ its length, width about $\frac{1}{2}$ its length; snout obtuse, projecting much beyond mouth; cleft of mouth wide, upper jaw overlaps lower, maxillary extends about $\frac{1}{2}$ diameter of eye beyond the posterior margin of the orbit and is about $\frac{1}{2}$ length of head; posterior margin of preoperculum descends obliquely backwards in a slight curve and is serrated, the angle produced into a rounded lobe.

Dorsal viii, i 13 ; origin of 1 st dorsal about in line with 7 th scale of lateral line; 1st spine minute, 3rd longest, and $\frac{3}{5}$ length of head, 4 th longer than 2nd, and those following rapidly decrease in height ; a series of small scales ascend behind each spine, and the length of the base of the fin equals $\frac{2}{3}$ its height. The distance between the two dorsal fins is greater than the base of the 2nd, which is entirely covered with scales and has its upper margin crescentic ; the soft dorsal is rather higher anteriorly than the first dorsal and than the anal, and the space between it and the candal is less than $\frac{1}{4}$ the total length of the body excluding caudal. Pectorals $16+\mathrm{v}$. ; rays unbranched, $\frac{2}{3}$ length of head, and base of fin covered with small scales ; the uppermost of the 5 appendages is the longest, nearly the length of the head and almost reaching to the tips of the ventrals. The root of the ventrals is in the vertical of 11th scale of lateral line, their length is $\frac{3}{5}$ that of the head, and the spine is about $\frac{1}{2}$ length of adjacent ray. Anal ii 11 ; origin falls in vertical of 6 th soft ray of dorsal ; only one spine is visible, which is a little more than $\frac{2}{5}$ the length of adjacent ray; the fin is similar to the soft dorsal. Caudal deeply forked, with pointed lobes slightly filamentous, covered with scales and $1 \frac{1}{5}$ times length of head; the least depth of free portion of peduncle equals $\frac{1}{2}$ length of head. Scales ciliated on posterior margin and free portion covered with minute spines. Lat. l. 65, almost straight, and extends slightly over lower lobe of candal, where it bends obliquely downwards. Lat. tr. $\frac{7}{13}$.

Colour (of preserved specimen), yellowish, with brown longitudinal lines running along body more distinct above lateral line than below; fins more or less dotted with black specks.

One specimen, 199 mm . in length, from Natal.

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## Umbrina strlata, n. sp.

Depth of body, $2 \frac{t}{5}$ times in total length excluding caudal, length of head $3 \frac{1}{5}$ times. Snout about $1 \frac{1}{3}$ times diameter of eye, which is $1 \frac{1}{6}$ times in interorbital width, and nearly $4_{\frac{2}{5}}$ times in length of head. Preoperculum with posterior margin slightly crenellated, with two coarse denticulations at the angle, which is slightly rounded; operculum with a flat weak spine; smout obtuse, projecting beyond mouth, upper jaw overlaps lower; maxillary reaches to vertical of middle of orbits; barbel on chin small, about $\frac{1}{4}$ diameter of eye in length with 2 open pores at the base on either side.

Dorsal x, i 27; spines weak and flexible, 3rd and 4th about equal, a little over $\frac{1}{2}$ length of head; longest soft rays $\frac{3}{5}$ length of longest spines. Pectorals nearly $\frac{3}{4}$ length of head. Ventrals $\frac{2}{3}$ length of head. Anal ii 7; 2nd spine strong, about $2 \frac{1}{5}$ times in length of head, $\frac{4}{5}$ length of longest soft ray and $\frac{2}{3}$ length of longest dorsal spine. Candal truncate. Scales ciliated, except those on snout and below eyes, which are cycloid; lat. 1. 49, lat. tr. $1^{7}$.

Colour (of preserved specimen), grey, with nine longitudinal dark bands on upper three-fourths of body.

One specimen, 267 mm . in length, from Mr. Robinson, Natal.
Umbrina dussumieri, $C$ and $V$.
Depth of body $3 \frac{1}{4}$ to $3 \frac{3}{5}$ times in total length excluding caudal, length of head about $3 \frac{1}{3}$ times. Snout equals interorbital width and is $1 \frac{2}{5}$ to $1 \frac{1}{2}$ times diameter of eye, which is $4 \frac{2}{5}$ to 5 times in length of head. Preoperculum entire; operculum with a soft spine; snout obtuse, overhangs mouth, upper lip overlaps lower, maxillary reaches to vertical of anterior third of orbits; distance from eye to upper maxillary bone about equals diameter of orbit; a short barbel, about $\frac{1}{4}$ diameter of eye in length, below chin at symphysis of lower jaw, with a row of 5 open pores in front of $i t$.

Dorsal x, i 26 ; spines weak, 2nd or $2 n d$ and $3 r d$ longest and $\frac{2}{5}$ to $\frac{1}{2}$ length of hearl; soft rays $\frac{3}{5}$ to $\frac{4}{5}$ length of longest spines. Pectorals $\frac{7}{10}$ length of head. Ventrals $\frac{3}{5}$ length of head. Anal ii 7; 2nd spine moderately strong, about $\frac{3}{10}$ length of head and $\frac{3}{5}$ length of longest soft ray. Caudal rounded. Scales cycloid; lat. 1. 49, lat. tr. $\frac{6}{12-14}$.

Three specimens, 180 mm ., 182 mm ., 146 mm . in length respectively, procured by the ss. Pieter Faure in shrimp trawl; the first in 26 fims., Amatikulu Conical Hill NW. $7 \frac{1}{2}$ miles, the other two in 24 fms., South Head Tugela River N. by W. $4 \frac{1}{2}$ miles.

They differ slightly from $U$. dussumicri (Day) in the length of the soft rays of the dorsal fin, the ventral fins also are shorter.

## Umbrina sinuata, Day.

Depth of body $2 \frac{6}{7}$ times in total length excluding caudal, length of head $3 \frac{1}{5}$ times. Snout equals interorbital width and is the same length as diameter of eye, which is $3 \frac{1}{8}$ times in length of head; distance between eye and upper jaw equals $\frac{5}{8}$ diameter of the orbit. Snout obtuse, swollen, and overhanging jaws; upper jaw overlapping the lower, maxillary reaching to vertical of middle of orbits ; preoperculum serrated, coarsely at angle, which is rounded; two soft opercular spines; shoulder flap serrated; 3 pores in a transverse line across base of snout; a short barbel on chin at symphysis of lower jaw, about $\frac{1}{4}$ diameter of eye in length, with 2 open pores on either side.

Dorsal x, i 27 ; spines slender, 2nd and 3rd longest $\frac{3}{4}$ length of head and about same length as longest rays. Pectorals nearly $\frac{2}{3}$ length of head. Ventrals $\frac{3}{4}$ length of head, reach to vent. Anal ii 7 ; 2nd spine moderately strong, a little over $\frac{1}{2}$ length of head and $\frac{ \pm}{5}$ length of first soft ray; the length of the base of the fin not quite $\frac{1}{4}$ that of the soft dorsal. Caudal wedge-shaped. Scales ciliated, except on snout and below eyes, where they are cycloid. Lateral line becomes straight above end of anal. Lat. 1.48, lat. tr. $\frac{7}{12}$.

Colour (of preserved specimen), light brown, first dorsal and ventrals and first part of soft dorsal dark brown.

One specimen, 80 mm . in length, procured by the ss. Picter Faure in shrimp trawl, 26 fms., Amatikulu Conical Hill NW. $7 \frac{1}{2}$ miles.

## Umbrina robinsoni, n. sp.

Depth of body $3 \frac{1}{10}$ times in total length excluding caudal, length of head $3 \frac{2}{3}$ times. Snout $1 \frac{5}{7}$ times diameter of eye, which is $1 \frac{3}{7}$ times in interorbital width and 5 times in length of head. Snout obtuse, swollen, and projecting beyond mouth, upper jaw longer than lower, maxillary reaches to vertical of anterior third of orbits; preoperculum distinctly denticulated along posterior margin and on
angle, which is rounded; operculum with 2 flat spines; distance between eye and upper jaw equals diameter of the orbit; barbel on chin at symphysis of lower jaw short, $\frac{1}{3}$ diameter of eye in length and with 2 open pores at its base on either side; a row of 3 pores across front of snout with a single pore above them in the centre.

Dorsal x, i 25 ; spines Hexible, 1st very short, 4th longest, slightly over twice the length of soft rays and $\frac{7}{10}$ length of head. Pectorals nearly $\frac{2}{3}$ length of head, rays divided. Ventrals slightly over $\frac{3}{4}$ length of head. Anal ii 7; 2nd spine strong, $2 \frac{1}{2}$ times in head and about $\frac{3}{5}$ length of 1st soft ray, which is about the same length as the longest dorsal spine. Caudal truncate. Scales ciliated, except on snout and below eyes, where they are cycloid. Lat. l. 49, lat. tr. $\frac{7}{17}$.

Colour (of preserved specimen), dark brown, ventrals and anal black, a series of faint lines almost straight run upwards and backwards from head to dorsal fin.

One specimen, 260 mm . in length, from Mr. Robinson, Natal.

## Sclena parva, n. sp.

Depth of body 3 to $3 \frac{1}{5}$ times in total length excluding caudal, length of head $3 \frac{1}{6}$ to $3 \frac{1}{4}$ times. Snout slightly less than interorbital space and 1 to $1 \frac{1}{4}$ times diameter of eye, which is 4 to $4 \frac{1}{3}$ times in length of head. Preoperculum finely serrated, with a coarse tooth at the angle, which is rounded, the spine is continued as a strong ridge on the preoperculum ; operculum with 2 weak flat spines; distance from eye to upper jaw equals $\frac{2}{3}$ diameter of eye; snout obtuse and rounded, upper jaw overlapping lower, cleft of mouth slightly oblique, maxillary reaches to vertical of anterior third of eye; a row of 5 open pores under the symphysis of lower jaw.

Dorsal x, i 27-31; spines weak, 2nd or 2nd and 3rd longest, $\frac{2}{5}$ length of head; soft rays about the same height as longest spines. Pectorals about $\frac{3}{4}$ length of head; ventrals about same length, the 1st ray being produced. Anal ii 7; 2nd spine moderately strong, about $\frac{1}{3}$ length of head and $\frac{2}{3}$ to $\frac{5}{n}$ the length of longest soft rays, which are slightly longer than the longest soft rays of the dorsal. Caudal wedge-shaped, the middle rays longest. Scales ciliated on body, cycloid on snout and below eyes. Tubes of lateral line branched posteriorly. Lat. 1. 47, lat. tr. $\frac{5}{9}$.

Three specimens, 93 mm ., 111 mm ., 126 mm . in length respectively, the last being a female with large well-developed ovaries (eggs $\cdot 4 \mathrm{~mm}$. in diameter) : procured by the ss. Picter Faure in
shrimp trawl, 24 fms., South Head Tugela River N. by W. 4 $\frac{1}{2}$ miles.

Otolithus ruber, Schneid.
Teeth, a single curved canine at symphysis of lower jaw, one on each side of symphysis of upper jaw. Depth of body slightly over $4 \frac{1}{3}$ times in total length excluding caudal, length of head nearly $3 \frac{1}{2}$ times. Snout a little longer than interorbital widun and slightly over $1 \frac{1}{2}$ times diameter of eye, which is 6 times in length of head. Cleft of mouth rather oblique, maxillary reaches to vertical of middle of orbits; lower jaw projects slightly beyond upper; distance from eye to upper edge of maxillary bone equals $\frac{2}{3}$ diameter of orbit ; preoperculum serrated, more coarsely at angle ; operculum with 2 soft spines.

Dorsal ix, i 28 ; spines weak and flexible, slightly filamentous; 2nd longest, $\frac{3}{10}$ length of head. Pectorals over $\frac{2}{3}$ length of head. Ventrals $\frac{1}{2}$ length of head. Anal ii 7; 1st spine minute, 2nd weak, about $\frac{1}{5}$ length of head and $\frac{1}{2}$ length of soft rays. Caudal slightly rounded. Scales cycloid; lat. 1. 50, tubes arborescent, lat. tr. $\frac{7}{17}$.

One specimen, 270 mm . in length, procured by the ss. Pieter Faure by shrimp trawl, 26 fms., Amatikulu Conical Hill NW. $7 \frac{1}{2}$ miles.

Five smaller specimens, ranging from 142 mm . to 178 mm . in length, procured by the ss. Pieter Faure by shrimp trawl, 12-14 fms., off South Head of Tugela River, appear to belong to this species. They differ in haring the caudal distinctly wedgeshaped, the middle ray being longest; the scales are ciliated; and the canine on each upper jaw is sometimes double-sometimes that on the right and sometimes that on the left.

## Family ACANTHURIDE.

## Acanthurus triostegus, L.

Teeth, 7 to 8 lobate incisors on either side of upper jaw, and 9 on each side of lower jaw. Depth of body $1 \frac{4}{5}$ to 2 times in total length excluding caudal, length of head 3 to $3 \frac{1}{2}$ times. Snout 3 to $3 \frac{1}{4}$ times diameter of eye, which is $1 \frac{5}{9}$ to $1_{\frac{7}{10}}$ times in interorbital width and $4 \frac{1}{2}$ to 5 times in length of head. Snout slightly concave, a slight protuberance over eyes.

Dorsal viii-ix 22-23; spines moderately strong, subequal from the 4th or 5th and about $\frac{1}{2}$ length of head; the longest spine is about the length of the longest soft rays, sometimes slightly longer or shorter. Pectorals $1 \frac{1}{7}$ times in length of head. Ventrals $\frac{t}{5}$ length of head. Anal iii 20 ; spines strong; 3rd longest, nearly the length of the longest dorsal spines and slightly shorter than the anal rays. Caudal emarginate. Spine short, about $\frac{1}{2}$ diameter of eje. Scales cycloid and rudimentary on head, and ctenoid on body.

Colour (of preserved specimens), brown, with six transverse black bands-the first goes through eyes, the second from 1st spine, and the last consisting of a band over the caudal peduncle and on each side with a gap in the middle. A fainter sinuous dark band passes along the rentral aspect of the body on each side-not present, however, in the small specimen.

Four specimens, $165 \mathrm{~mm} ., 140 \mathrm{~mm} ., 135 \mathrm{~mm}$. and 47 mm . in length respectively, the first three from Durban Museum, the last-an immature specimen-from Mr. Robinson, Natal, who states it is found among rocks.

> Acanthurus matoides, C. and V.
> (Surgeon.)

Teeth, 8 lobate incisors on either side of upper jaw, and 8 or 9 on either side of lower jaw. Depth of body twice in total length excluding caudal, length of head nearly 4 times. Snout $3 \frac{3}{4}$ times diameter of eye, which is $1 \frac{3}{3}$ times in interorbital width and $5 \frac{1}{5}$ times in length of head. Profile from snout to orbit distinctly convex; distance from anterior nostril to front edge of upper jaw nearly $\frac{2}{3}$ length of head and equals distance from eye to angle of mouth ; opercle striated; cleft of mouth small.

Dorsal ix 26 ; spines of moderate strength ; 1st spine concealed, remainder subequal from 5 th and not quite as high as soft rays, about $\frac{.}{\overline{3}}$ length of head. Pectorals nearly as long as the head. Ventrals nearly $\frac{4}{5}$ length of head. Anal iii 25 ; spines strong; 3rd longest, over $\frac{2}{5}$ length of head and nearly $\frac{3}{4}$ height of longest dorsal spine; soft rays rather shorter than those of soft dorsal. Caudal deeply emarginate, outer rays elongated, causing the fin to be deeply lunated in its last half. Spine $1 \frac{1}{8}$ times diameter of eye. Free portion of caudal at its lowest part about $2 \frac{1}{4}$ times diameter of eye or slightly more than $\frac{2}{5}$ length of head. Scales ctenoid on body, rudimentary and cycloid on head and shoulders.

Colour (of preserved specimen), dark brown, a tinge of yellow on margin of pectorals and a faint tinge on margin of caudal.

One specimen, 329 mm . in length, from Mr. Robinson, Natal, taken off Durban Breakwater.

A second and smaller specimen, 149 mm . in length, from the Durban Museum seems to be an immature form of the above. It differs from it in the following respects: Snout $2_{5}$ times diameter of eye, which is $1 \frac{1}{2}$ times in interorbital width and 4 times in length of head. Snout slightly concave; distance from anterior nostril to front edge of upper jaw $\frac{3}{5}$ length of head and equals distance from eye to angle of mouth. Dorsal ix 25. Pectorals as long as head, ventrals slightly shorter. Anal iii 24 . Free portion of tail at lowest part about $1_{1 \frac{7}{10}}$ times diameter of eye. Spine equals diameter of eye. Scales ctenoid on body and head.

## Family CARANGIDe.

Chorlnemus sancti-petri, C. and V.
(Five-fingers.)
Teeth, in 2 rows on lower jaw; 2 rows in upper jaw, becoming single in last fifth of upper jaw : teeth on vomer in triangular patch ; on palate in a broad, elongate band ; and on tongue. Depth of body $3 \frac{3}{4}$ times in total length excluding caudal, $4 \frac{1}{2}$ times including caudal ; length of head 5 times. Snout $1 \frac{2}{3}$ times diameter of eye, which is nearly twice in interorbital width and over $5 \frac{1}{2}$ times in length of head. Profile behind orbits slightly concave; cleft of mouth deep and slightly oblique, maxillary reaches to vertical of posterior margin of orbits, lower jaw longer than upper.

Dorsal vi, i 20 ; spines flattened, laterally expanded into a lanceolate form, each spine does not extend to the base of the one next it. Second dorsal commences about midway between caudal and snout; its first portion elevated, nearly $\frac{3}{5}$ length of head, about $\frac{1}{2}$ height of body, and ${ }_{1}^{\frac{1}{1} 0}$ longer than anterior anal rays ; the last 9 rays are semi-detached, the last ray a little elongated. Pectorals nearly $\frac{2}{3}$ length of head. Ventrals nearly $\frac{2}{5}$ length of head. Anal ii, i 18 , resembles soft dorsal; detached spines moderately strong, 2nd spine longest and about $\frac{1}{2}$ height of anterior soft rays. Caudal deeply forked. Scales lanceolate and pointed in their exposed portions, behind which they end in a narrow peduncle about $\frac{1}{2}$ the
entire length. Lateral line almost straight on posterior half of body, rising to a slight angle about in line with 3rd spine of 1st dorsal fin, and wavy anteriorly.

Colour (of preserved specimen), bluish-gray above lateral line, white below, an indistinct row of rounded dark spots 8 or 9 in number above lateral line and a row of about 4 larger dark blotches below lateral line between pectorals and anal, soft dorsal black anteriorly.

One specimen, 358 mm . in length, from Mr. Robinson, Natal. This fish differs from C. sancti-petri described by anthors in the teeth and the few spines of dorsal, and may be a new species; but only one specimen was available for examination, and these features may not be constant.

## Trachynotus oblongus, C. and V.

Depth of body about $2 \frac{3}{5}$ times in total length excluding caudal, length of head $3 \frac{1}{2}$ to $3 \frac{3}{4}$ times. Snout slightly longer than diameter of eye, which is $1 \frac{1}{3}$ to $1 \frac{2}{5}$ times in interorbital width and about 4 to $4 \frac{1}{\overline{5}}$ times in length of head. Dorsal and abdominal profiles about equally convex; snout obtuse; maxillary reaches to vertical of middle of orbits ; central longitudinal line on head distinctly marked.

Dorsal vii, i 23 ; spines of moderate strength; anterior rays of 2nd dorsal prolonged, nearly the length of the head and about $\frac{t}{5}$ the base of the fin, if laid back they reach to behind the middle of the fin. Pectorals about $\frac{3}{4}$ length of head. Ventrals about $\frac{1}{2}$ length of head, and reach to vent. Anal ii, i 20 ; first rays produced similar to soft dorsal and about same height. Caudal deeply forked, central rays $3 \frac{1}{3}$ times in the longest outer ones. Scales cycloid, small and in irregular rows; lateral line nearly straight, curving slightly and wavy anteriorly.

Colour (of preserved specimens), three or four dark blotches above lateral line, first rays of dorsal and anal dark.

Three specimens, 153 mm ., 159 mm ., 152 mm . in length respectively. The first from Durban Museum ; the other two procured from fishermen at Natal, caught in seine net on beach of Inner Harbour, Durban.

## Trachynotus ovatus, L.

Depth of body $2 \frac{1}{5}$ times in total length excluwting caudal, length of head $3 \frac{3}{4}$ times. Snout about $1 \frac{1}{4}$ times diameter of eye, which is about half the interorbital width and nearly $4 \frac{1}{3}$ times in length of head. Snout very obtuse and projects beyond mouth; upper lip
slightly longer than lower, cleft of mouth slightly oblique, maxillary reaches almost to vertical of middle of orbits; eyes in lower half of head; the profile of head from dorsal fin to snout romded.

Dorsal vi, i 23 ; spines of 1st dorsal very short; anterior ray of soft dorsal highest, $\frac{7}{8}$ length of head and nearly $\frac{1}{2}$ height of body, when laid back reaching beyond centre of fin, the last 17 rays parallel with curve of back. Pectorals, upper rays longest, over $\frac{3}{4}$ length of head. Ventrals nearly $\frac{1}{2}$ length of head. Anal ii, i 20 ; similar to soft dorsal, but anterior rays only $\frac{7}{8}$ the height; last 15 rays parallel with abdominal curve. Caudal forked (damaged in specimen). Lateral line ascends slightly anteriorly, then curves irregularly downwards to opposite the base of the 10 th or 11 th ray of soft dorsal and thence proceeds straight to caudal. Scales cycloid.

Colour (of preserved specimen), dark above, white below.
One specimen, 258 mm . in length, from Mr. Robinson, Natal.

## Platax teira, Forsk.

Depth of body slightly over total length excluding caudal, length of head $3 \frac{1}{7}$ times in total length excluding candal. Snout equals interorbital width and is about $1 \frac{1}{2}$ times diameter of eye, which is $3 \frac{1}{;}$ times in length of head. Profile of head and snout very obtuse ; cleft of mouth small, maxillary scarcely reaches to anterior margin of eye; greatest depth of preorbital equals $\frac{5}{6}$ diameter of eye; angle of preoperculum rounded and entire.

Dorsal v 31; anterior soft rays very prolonged, equal the total length of the body including caudal. Pectorals $\frac{3}{4}$ length of head. Ventrals, upper rays prolonged, equal $\frac{4}{5}$ length of body without caudal or $2 \frac{3}{5}$ times length of head. Anal iii 24 ; similar to soft dorsal, but rays not so prolonged, about $\frac{9}{10}$ height of longest soft ray of dorsal. Caudal with central rays slightly prolonged, making posterior end of fin slightly concave in either half. Scales ctenoid; lat. l. 62, irregularly curved.

Colour (of preserved specimen), dark with three faint black bands across head and body; ventrals black.

One specimen, 126 mm . in length, from Durban Museum.

Equula edentula, Bl.
(Slimy.)
Teeth, a single row of villiform teeth on upper jaw, a narrow band on lower. Depth of body $1 \frac{4}{5}$ times to twice in total length
excluding caudal, length of head $3 \frac{1}{3}$ times. Snout equals interorbital width and is slightly greater than diameter of eye, which is about $3 \frac{1}{7}$ times in length of head. Dorsal profile more convex than abdominal; a concavity over the occiput; interorbital cavity nearly twice as long as wide; a pair of small spines above anterior upper angle of each orbit, the distance between their outer edges being $2 \frac{2}{3}$ times in length of head; cleft of mouth small, lips thick, the upper very slightly projecting over lower, maxillary reaches to vertical of anterior third of orbits; lower edge of preoperculum nearly straight and finely serrated.

Dorsal viii $15-16$; spines weak and flexible; 2nd spine longest, $\frac{3}{5}$ to $\frac{2}{3}$ length of head; 3rd and 4 th spines sometimes serrated anteriorly. Pectorals about $\frac{3}{4}$ length of head. Ventrals about $\frac{1}{2}$ length of head and with a long lanceolate scale with a hard rib next to the spine, which is strong. Anal iii 14, spines moderately strong; 2nd spine strongest and longest, about $\frac{1}{2}$ length of head. Caudal forked, free portion of tail about as high as long. Scales covering body but absent on chest. Lateral line curves rather irregularly, 62-65 tubes, ceases immediately before base of caudal.

Colour (of preserved specimen), uniform brown.
Two specimens, $156 \mathrm{~mm} ., 157 \mathrm{~mm}$. in length respectively, the former from Mr. Robinson, Natal, the latter procured by the ss. Pieter Faure from the Inner Harbour, Durban.

## Gazza equuleformis, Rupp.

Teeth, a row of small sharp-pointed teeth on upper jaw, with a large slightly curved canine on each side of symphysis; a row of curved pointed teeth on lower jaw getting larger anteriorly, those at the symphysis being very small. Depth of body $2 \frac{1}{4}$ to $2 \frac{1}{2}$ times in total length excluding caudal, length of head nearly $3 \frac{1}{4}$ times. Snout equals the interorbital width and is slightly less than diameter of eye, which is about 3 times in length of head. Supra-orbital ridge feebly serrated; two small spines above the anterior third of eye, the distance between them being about $\frac{1}{4}$ length of head; preoperculum with lower margin serrated and angle rounded ; maxillary reaches to vertical of anterior margin of orbits; mouth very protractile.

Dorsal viii 15 ; originates behind base of pectorals, spines weak; 1 st spine minute, 2 nd longest, $\frac{3}{5}$ length of head. Pectorals $\frac{3}{10}$ length of head. Ventrals from $\frac{1}{2}$ to nearly $\frac{1}{3}$ length of head. Anal iii 14 ; 2nd spine longest, over $\frac{2}{5}$ length of head and nearly $\frac{3}{4}$ length of and
slightly stronger than longest dorsal spine. Caudal forked. The lateral line appears to cease on the right side near end of soft dorsal, on the left it is continued to caudal, and consists of about 56 tubes.
Colour (of preserved specimen), grey above silvery below, a series of irregular dark lines between back and lateral line, fine black dots over head and body.

Two specimens, 122 mm . and 135 mm . in length respectively, from Mr. Robinson, Natal.

## Family SCOMBRIDe.

Scomber brachysoma, Bleek.
(Mackerel.)
Depth of body $3 \frac{1}{7}$ times in total length excluding caudal, $3 \frac{3}{4}$ times with caudal ; length of head $3 \frac{3}{5}$ times. Snout slightly longer than diameter of eye, which is about $\frac{1}{8}$ less than interorbital width and $3_{\frac{4}{5}}$ times in length of head. Eye with a broad anterior and posterior adipose lid; cleft of mouth deep, lower jaw slightly longer than upper, maxillary reaches to vertical of posterior third of orbits; greatest depth of preorbital $\frac{2}{3}$ diameter of eye, length $\frac{2}{5}$ length of head, concealing maxillary bone; interorbital space flat.

Dorsal $x$, i 11, v; spines weak, 2nd spine longest, nearly $\frac{3}{5}$ length of head or about $\frac{1}{2}$ depth of body; distance between the two dorsal fins equals about $\frac{1}{2}$ length of base of soft fin; finlets are just behind the soft dorsal, and opposite and similar to those of anal. Pectorals short, about $\frac{1}{2}$ length of head. Ventrals $\frac{2}{5}$ length of head. Anal i 11, v; about same height and length as 2nd dorsal fin. Caudal deeply forked. Scales cycloid; 2nd dorsal and anal covered with minute oblong scales. Lat. l. ca. 146, Lat. tr. $\frac{13}{3 \mathrm{~g}}$.

Colour (of preserved specimen), dark above, silvery below.
One specimen, 201 mm . in length, from Mr. Robinson, Natal.

## Famly URANOSCOPID雨.

## Uranoscopus occidentalis, Agass.

Teeth, in villiform bands on jaws, vomer and palatines, with two strong rather widely separated larger teeth posteriorly on lower jaw.

Depth of body nearly $3 \frac{3}{4}$ times in total length excluding caudal, length of head 3 times; greatest width of head slightly greater than its length. Snout $\frac{5}{8}$ diameter of eye, which equals interorbital width and is $4 \frac{1}{4}$ times in length of head. Eyes situated at upper surface of head and far forward; cleft of mouth nearly vertical, lower lip with papillæ, lower jaw projects ; anterior nostril with a flap; preoperculum with 4 or 5 spines on lower limb; preorbital with 2 strong spines; 2 spines on scapula; a long strong spine on humerus $1 \frac{1}{3}$ times diameter of eye in length; 2 bony projections or blunt spines on occiput; posterior edge of membrane of opercle fringed; a sharp spine, pointing forward, on each side of isthmus anteriorly.

Dorsal iv 13 ; spines very weak and flexible, about $\frac{1}{4}$ length of head; longest soft rays $1 \frac{1}{2}$ times height of spines, remainder decreasing posteriorly. Pectorals $\frac{3}{4}$, ventrals $\frac{3}{5}$ length of head. Anal 13 ; rays lower anteriorly and lengthening posteriorly to about height of longest rays of soft dorsal. Caudal $\frac{4}{5}$ length of head, slightly rounded. Lateral line curves slightly upwards from shoulder to extremity of spinous dorsal and continues close to base of soft dorsal for the rest of its length. Scales on head and fore part of body embedded in skin, on remainder of body in diagonal rows.

Colour (of preserved specimen), yellowish brown, spinous dorsal black.

One specimen, 122 mm . in length, caught by the ss. Pieter Faure in shrimp trawl, 46-55 fms., mud and sand, Tugela River mouth N. by W. 18 miles.

## Fanili TRACHINID无.

Percis nebulosa, C. and V. (Sand Smelt.)

Teeth, an anterior row of about a dozen enlarged and slightly curved teeth on upper jaw, and about 8 strong recurved teeth anteriorly on lower jaw, with some enlarged lateral teeth on mandibles; a curved row of rounded teeth on vomer. Depth of body $6 \frac{2}{5}$ times in total length excluding caudal, length of head $3 \frac{3}{5}$ times. Snout about $2 \frac{1}{3}$ times greatest diameter of eye, which is slightly less than interorbital width and a little over $5 \frac{1}{2}$ times in length of head. Head flat, its height mearly $\frac{1}{2}$ its length, and its
greatest width nearly $\frac{2}{3}$ its length; snout depressed, lower jaw slightly longer, maxillary reaches almost to vertical of anterior margin of orbits; greatest depth of preorbital nearly $1 \frac{1}{3}$ times diameter of eye; preoperculum entire, suboperculum with 2 or 3 serrations, operculum with a well-defined spine.

Dorsal v 22 ; spines strong, 3 rd and 4 th equal about $1 \frac{1}{3}$ times diameter of eye and nearly $\frac{1}{4}$ length of head; soft rays about twice diameter of eye and nearly $\frac{2}{5}$ length of head, membranes deeply incised. Pectorals rather truncate, shorter than ventrals and nearly $\frac{3}{5}$ length of head. Anal i 18 ; soft rays a little longer than those of soft dorsal; membranes deeply incised. Caudal truncate or very slightly rounded, the outer rays above and below a little prolonged. Scales, 5 rows between lateral line and base of 1st dorsal ; lat. l. 77, lat. tr. $\frac{55}{20}$.

Colour (of preserved specimen), grey, dorsall? with about 8 bands of the same colour, ventrally an indistinct broad white band from pectorals to caudal, and a black spot on upper part of base of caudal.

One specimen, 220 mm . in length, from Mr. Robinson, Natal.

> Sillago simama, Forsk.
> (Smelt.)

Teeth, villiform bands on both jaws; a semicircular band on vomer. Depth of body $5 \frac{1}{2}$ to 6 times in total length excluding caudal, length of head $3 \frac{1}{2}$ to $3 \frac{3}{3}$ times. Snout twice the diameter of the eye, which equals the interorbital width and is $4 \frac{1}{3}$ to $4 \frac{1}{2}$ times in length of head. Snout pointed; greatest width of head about equals its height and is $\frac{1}{2}$ its length ; upper jaw slightly longer and overlaps the lower; cleft of mouth small ; vertical limb of preoperculum finely serrated; operculum with a well-developed spine.

Dorsal xi, i 21 ; spines of anterior dorsal weak and flexible, 2nd and 3rd spines subequal and $\frac{?}{10}$ height of body below them; 2nd dorsal highest anteriorly, where it equals about $\frac{3}{5}$ height of body. Pectorals $\frac{1}{2}$ to $\frac{3}{5}$ length of head, and slightly longer than ventrals. Anal ii $23-24$; below and similar to soft dorsal, but not quite so high. Caudal emarginate. Scales, $5 \frac{1}{2}$ to 6 rows between lateral line and last spine of anterior dorsal. Lat. 1. 70, lat. tr. ${ }_{12}^{41-5}$.

Colour (of preserved specimens), greenish grey.
Two specimens, 140 mm ., 142 mm . in length respectively, procured by the ss. Pieter Faure in shrimp trawl, 1 to $3 \frac{1}{2}$ fms. sand and shells, in Bluff Channel, Durban Bay. The fish occurs abundantly in Durban Harbour, and is known as the "Smelt."

Sillago chondropus, Bleek.
Teeth, villiform in both jaws, a broad band on vomer. Depth of body nearly 6 times in total length excluding caudal, length of head 4 times. Snout 3 times diameter of eye, which is $1 \frac{1}{2}$ times in interorbital width and 7 times in length of head. Head depressed, profile in an almost straight line from nape to snout; preoperculum finely serrated; operculum with a strong flat spine ; cleft of mouth small, maxillary scarcely reaches vertical of anterior nostril ; greatest width of head about $\frac{1}{2}$ its length, greatest depth a little less than half; a deep open pore below symphysis of lower jaw.

Dorsal xi, i 20 ; spines of 1 st dorsal flexible, the 2 nd and 3 rd spines being subequal a little orer $\frac{1}{2}$ length of head and about $\frac{t}{3}$ the height of the body below them; 2nd dorsal is higher anteriorly, ${ }_{10}^{7}$ io the height of longest spine of 1 st dorsal. Pectorals a little more than $\frac{1}{2}$ length of head, covered with scales on their lower half. Ventrals $\frac{1}{3}$ length of head, the spine shortened and thickened into a falciform club $\frac{7}{10}$ the length of the longest ray. Anal i 23 ; similar to soft dorsal but not so high. Caudal (damaged in specimen) covered with scales on lower half. Scales in regular horizontal rows, extending over cheeks, below eyes as far forward as the anterior nostril, and on dorsal and anal fins. Lateral line descends very gently to posterior third of body. Lat. l. 70, lat. tr. $\frac{5}{12}$.

Colour (of preserved specimen), uniform grey.
One specimen, 300 mm . in length, from Durban Museum.

## $\mathrm{F}_{\text {amily }}$ COTTIDA.

## Platycephalus scaber, Günth.

Teeth, a narrow band on upper jaw, broadened at symphysis, a single series laterally on lower jaw merging into about 3 rows at symphysis; two small patches on vomer, an elongated band on each palatine. Depth of body $6 \frac{ \pm}{5}$ times in total length excluding caudal, length of head $2 \frac{7}{10}$ times. Snout equals diameter of eye, which is $2 \frac{3}{3}$ times interorbital width and $3_{\frac{7}{10}}^{7}$ times in length of head. Interorbital space concave; greatest width of head $\frac{3}{4}$ its length, greatest height a little over $\frac{2}{5}$ length, head and snout depressed; width of mouth about $2 \frac{1}{2}$ times its depth, maxillary reaches vertical of anterior third of orbits; 2 or 3 strong spines at anterior upper margin of orbits; supraorbital margin serrated, from it a spinate ridge extends
to occiput; a similar ridge ending in two spines at the beginning of the lateral line goes from posterior margin of eye to shoulder; a ridge proceeds from upper anterior edge of preorbital to angle of preoperculum ending in a strong spine $\frac{5}{6}$ diameter of eye in length with 2 small ones below it ; lower anterior margin of preorbital with 3 spines; a bony ridge round nostrils; 2 opercular spines; eyes large and placed almost on upper surface of head.

Dorsal i, vii 12 ; spines of 1 st dorsal moderately strong, the 2 nd and 3rd spines about equal and slightly over $\frac{2}{5}$ length of head; 2nd dorsal about the same height. Pectorals 21; $\frac{1}{2}$ length of head. Ventrals $\frac{7}{10}$ length of head, reaching to in line with 5 th anal ray. Anal 12 ; commences slightly behind the vertical of 1 st ray of soft dorsal; rays about $\frac{2}{5}$ length of longest spines of dorsal. Caudal truncate, about $\frac{1}{2}$ length of head. Scales, 3 rows between lateral line and base of dorsal. Lateral line with 55 strong double spines directed backwards extending along its entire length.

Colour (of preserved specimen), white ; the fins, especially the 1st dorsal, blackish.

One specimen, 134 mm . in length, procured by the ss. Pieter Faure in shrimp trawl W. of Umhlangu River, Cape Natal lighthouse SIV. $\frac{1}{2}$ W. 8 miles.

Platycephalus insidiator, Forsk.
Depth of body $8 \frac{2}{5}$ times in total length excluding caudal, length of head a little more than $3 \frac{1}{2}$ times. Snout $2 \frac{1}{4}$ times diameter of eye, which is $1 \frac{1}{3}$ times in interorbital width and a little more than $7 \frac{1}{2}$ times in length of head. Head strongly depressed; the upper surface being of triangular shape, the base being a line drawn from one preopercular spine to its fellow, and the width of base $\frac{4}{5}$ length of head ; the ridges on the head are scarcely prominent. Lower jaw longer than upper, maxillary reaches to vertical of middle of orbits; eyes superior, interorbital space slightly concave; two ridges extending backwards from each eye, the inner dividing at the occiput, the outer ridge ending at the shoulder in two blade-like spines; a low blunt spine in front of each eye close to posterior nostril ; preorbital with three ridges starting in a stellate form from a common centre; preoperculum with most of its surface forming a portion of the flattened upper plane of the head, with 2 strong spines at its angle, the lower of which is most developed and $\frac{3}{4}$ diameter of eye in length; operculum with 2 inconspicuous spines.

Dorsal i, vii 14 ; a small stout spine before the spinous dorsal, of which latter the spines are weak, the 1 st spine longest and nearly
$\frac{1}{2}$ length of head, the succeeding spines shortening posteriorly; anterior rays of soft dorsal about same height as the longest spine, membranes very emarginate. Pectorals a little over $\frac{1}{2}$ length of head. Ventrals $\frac{3}{4}$ length of head and reach to origin of anal. Anal 13 ; rays about same height as longest spine of dorsal; membranes of anterior rays very emarginate, leaving more than half the ray free, and posteriorly each ray seems to be free for its whole length. Caudal same length as pectorals, slightly rounded.

Colour (of preserved specimen), dark brown above, light below; upper lobe of caudal with two oblique dark bands, lower lobe with one.

One specimen, 323 mm . in length, from Durban.
This is apparently a young fish, differing in some respects from Day's description of $P$. insidiator, but on the whole apparently belongs to that species.

## Fanily SPHYRANIDE.

## Sphyrena jello, C. and V.

Teeth, a series of long isolated canines on upper jaw, a series of smaller ones on lower with a large canine at symphysis. Depth of body a little over $6_{5}^{\frac{t}{5}}$ times in total length excluding caudal, length of head nearly $3 \frac{1}{3}$ times. Distance from eye to point of snout nearly 3 times diameter of eye, which is $1_{\frac{3}{10}}$ times in interorbital width and $6 \frac{2}{5}$ times in length of head ; height of head nearly $\frac{2}{5}$ its length, width over $\frac{1}{4}$ its length. Interorbital space slightly concave; snout long and pointed; cleft of mouth wide, lower jaw longer than upper and with a fleshy tubercle at end of symphysis, maxillary reaches to vertical of anterior margin of orbits; angle of preoperculum obliquely rouuded ; operculum with two points.

Dorsal v 19; first dorsal commences a little behind vertical of origin of ventrals, at a distance from posterior margin of orbits equal to the space between its last spine and the origin of the soft dorsal ; 1st spine longest, $\frac{-3}{10}$ length of head, remaining spines shortening successively to about $\frac{1}{2}$ the height of the first. Anterior soft rays of 2nd dorsal nearly $\frac{2}{5}$ length of head, emarginate. Pectorals 14 , $\frac{2}{5}$ length of head. Ventrals $\frac{1}{3}$ length of head. Anal i 9; commences behind vertical of origin of soft dorsal, about same height but the base not so long. Caudal $\frac{t}{5}$ length of head, forked, outer rays produced into a filament. Depth of body about the same from
head to origin of anal, thickness a little over $\frac{1}{2}$ depth. Scales small; lateral line tubes distinct, 120.

Colour (of preserved specimen), dark grey above lateral line, white below.

A single specimen, 425 mm . in length, from Mr. Robinson, Natal.

## Family GLYPhidodontide.

Glyphidodon celestinus, Soland.
(Isibubu lungwana.)
Teeth, in a single row on each jaw, crowns notched. Depth of body $1 \frac{4}{5}$ to 2 times in total length excluding caudal, length of head $3 \frac{1}{5}$ to $3 \frac{3}{4}$ times. Snout equal to or slightly less than diameter of eye, which is about $1 \frac{1}{5}$ to $1 \frac{1}{2}$ times in interorbital width and $3 \frac{1}{5}$ to $3 \frac{1}{2}$ times in length of head. Greatest width of preorbital $\frac{3}{5}$ to $\frac{2}{3}$ diameter of eye, suborbital ring narrow ; maxillary reaches scarcely to vertical of anterior margin of orbits; angle of preoperculum rounded and roughened or slightly serrated; a spine on opercle; profile from eyes to origin of dorsal convex; cleft of mouth small, oblique.

Dorsal xiii 13 ; spines strong, 4th to 6 th longest and about ${ }^{\frac{3}{3}}$ length of head; soft portion of fin pointed, 4th and 5th rays longest and $1 \frac{1}{2}$ times to twice as high as longest spines. Pectorals from a little more than 1 to $1 \frac{1}{5}$ times length of head, and about the same length as or slightly longer than ventrals, which reach to the origin of the anal, the first ray being prolonged. Anal ii 12; 2nd spine strong and slightly longer than longest spines of dorsal; soft portion of fin similar to and about the same height as soft dorsal. Caudal deeply forked, upper lobe slightly longer than lower, $1 \frac{1}{3}$ to $1 \frac{3}{5}$ length of head. Scales extend over head to front margin of the eyes. Lat. 1. 30, lat. tr. $\frac{4 \frac{3}{1}}{11-12}$.

Colour (of preserved specimens), grey, with five transverse bars; a dark spot on base of pectorals.

Two specimens, 108 mm . and 120 mm . in length respectively, from Mr. Robinson, Natal.

## Glyphidodon sordidus, Forsk.

Teeth, a single row on each jaw, crowns notched. Depth of body $1 \frac{2}{3}$ to $1 \frac{4}{5}$ times in total length excluding caudal, length of head 3 to
$3 \frac{1}{4}$ times. Snout slightly less than interorbital width and $\frac{1}{8}$ to $\frac{1}{4}$ greater than diameter of eye, which is $3 \frac{1}{4}$ to $3 \frac{3}{4}$ times in length of head. Greatest width of preorbital $\frac{3}{4}$ to $\frac{6}{7}$ diameter of eye, suborbitals about $\frac{1}{2}$ as wide; maxillary reaches to vertical of anterior nostril; a spine on opercle; profile from snout to dorsal fin ascends abruptly.

Dorsal xiii 15 ; 5th to 7 th spines longest and from $\frac{1}{2}$ to $\frac{3}{5}$ length of head; soft portion of fin higher than long, the middle rays about $\frac{2}{3}$ length of head. Pectorals a little longer than head, ventrals slightly shorter. Anal ii 15-16; 2nd spine strong and about same length as longest spine of dorsal ; soft portion of fin similar to and about the same height as soft dorsal. Caudal forked, nearly equals length of head. Lat. 1. 28, interrupted; lat. tr. $\frac{4 \frac{3}{2}-5}{11-12^{2}}$.

Colour (of preserved specimens), dark grey ; faint transverse bands on body, fins of darker colour except pectorals, tips of soft dorsal and anal light, a spot at base of pectorals and a larger one on body at junction of soft dorsal and caudal peduncle, a row of dark spots across nape ; some specimens are without these markings.

Three specimens, 78 mm ., 85 mm ., 99 mm . in length respectively, from Mr. Robinson, Natal; frequents rock-pools.

## Fayily LABRIDA.

## Cossyphus nigromaculatus, n. sp.

A posterior canine tooth present. Depth of body nearly $2 \frac{2}{\overline{3}}$ times in total length excluding caudal, length of head 3 times. Snout nearly twice diameter of eye, which is $1 \frac{1}{2}$ times in interorbital width and slightly more than 5 times in length of head. Upper profile of head almost straight, snout pointed; eyes placed rather high up, interorbital space convex; cleft of mouth slightly oblique, jaws equal, maxillary reaches to vertical of anterior margin of orbits; preoperculum minutely serrated at its rounded angle.

Dorsal xii 10 ; 2nd spine longest, about $\frac{3}{10}$ length of head; soft portion of fin higher than spinous, rays lower anteriorly, rising to about $\frac{3}{5}$ length of head. Pectorals a little more than $\frac{3}{4}$ length of head. Ventrals with first two rays produced, about $\frac{7}{3}$ length of head and reaching to origin of anal. Anal iii 12 ; spines weak, soft portion of fin similar to soft dorsal. Caudal emarginate, outer rays
produced and nearly as long as head. Lat. l. 33, lat. tr. $\frac{7}{13}$; seven series of scales between lateral line and base of dorsal.
Colour (of preserved specimen), greyish pink, a large black spot between lateral line and soft dorsal extending on to base of fin; spinous dorsal black; a black spot on distal anterior edge of pectorals; scales on posterior half of body covered with minute dark specks.

One specimen, 240 mm . in length, procured from line-fishermen at Durban ; caught outside of harbour.

## Julis umbrostigma, Rüpp. (Parrot-fish.)

No posterior canine. Depth of body 3 times in total length excluding caudal, length of head nearly $3 \frac{2}{5}$ times. Snout more than $2 \frac{3}{4}$ times diameter of eye, which is a little less than $\frac{1}{2}$ interorbital width and $7 \frac{1}{3}$ times in length of head. Cleft of mouth slightly oblique, jaws equal, maxillary reaches to vertical of anterior nostril.

Dorsal viii 13 ; commences above base of pectorals, spines weak. Pectorals 16, nearly $\frac{3}{4}$ length of head. Ventrals $\frac{2}{3}$ length of head. Anal ii 11. Caudal same length as pectorals, sub-truncate. Scales on body comparatively large, cycloid. Lateral line tubes branched, curve very flat, running in a straight line from head to posterior third of soft dorsal before it descends. Lat. 1. 27, lat. tr. $\frac{1}{10}^{\frac{3}{0}}$.

Colour (of preserved specimen), brown, with green and red longitudinal stripes on body ; dark bands radiate from the orbits to middle of operculum.

One specimen, 222 mm . in length, from Mr. Robinson, Natal, who says that the fish is known on the Natal coast as the Parrot-fish, and is caught amongst rocks.

## Julis lunaris, L.

Depth of body $3 \frac{1}{\frac{1}{4}}$ times in total length excluding caudal, length of head 4 times. Snout twice diameter of eye, which is $1 \frac{3}{5}$ times in interorbital width and $5 \frac{3}{7}$ times in length of head. Jaws equal, maxillary reaches to vertical of anterior nostril; infra-orbital ring striated, and striæ radiating from posterior margin of eye backwards to operculum and upwards to nape.

Dorsal viii 13 ; spines weak, low and gradually lengthening slightly; soft rays progressively lengthening a little. Pectorals $\frac{3}{4}$ and ventrals $\frac{3}{5}$ length of head. Anal ii 11 ; similar to soft dorsal. Caudal lunate, outer lobes much produced and 13 times length of
head; a row of oblong scales at base. Scale large and striated; lat. 1. 25 , lat. tr. $\frac{3}{9}$.

Colour (of preserved specimen), uniform light yellowish brown, head darker ; an oblong dark spot on pectorals.

One specimen, 152 mm . in length, from Durban Museum.

## Julis trilobata, Lacép.

No posterior canine. Depth of body about equals length of head and is about $3 \frac{2}{5}$ times in total length excluding caudal. Snout $3 \frac{3}{4}$ times diameter of eye, which is $2 \frac{1}{2}$ times in interorbital width and $9 \frac{1}{2}$ times in length of head. Cleft of mouth lateral, jaws equal, maxillary reaches to vertical of anterior margin of eye.

Dorsal viii 13 ; spines weak and lower than soft rays; the first and the last soft rays are shorter, the middle rays subequal and a little over $\frac{3}{10}$ length of head. Pectorals 16 ; angular, upper rays longest and $\frac{3}{5}$ length of head. Ventrals $\frac{2}{5}$ length of head. Anal iii 11; anteriorly about the same height as middle rays of soft dorsal, decreasing slightly in length posteriorly. Caudal sub-truncate, emarginate, $\frac{1}{2}$ length of head, rays divided. Lat. 1. 28, lat. tr. $\frac{3}{10}$, tubes branched ; the curve of the lateral line is long and low, running parallel to dorsal profile from the head to in line with base of 9 th ray of anal.

Colour (of preserved specimen), green, with a broad dark stripe along upper part of body, a white stripe extending from operculum to root of caudal along middle of body, a third white stripe at a low level extending from root of caudal to pectorals; a white stripe on dorsal and anal.
One specimen, 245 mm . in length, from Durban Museum.

## Cheilio inermis, Forsk.

Depth of body $6 \frac{1}{5}$ times in total length excluding caudal, length of head $3 \frac{1}{5}$ times. Snout $3 \frac{2}{3}$ times diameter of eye, which equals interorbital width and is 8 times in length of head. Lower jaw slightly longer than upper; snout long and pointed; interorbital space slightly concave; preoperculum slightly emarginate on each side of the rounded angle.

Dorsal ix 13 ; spines weak, soft-rayed portion of fin slightly higher than spinous and about $\frac{1}{4}$ length of head. Pectorals $\frac{1}{3}$ length of head, rays divided. Ventrals $\frac{1}{3}$ length of head. Anal iii 13 ; similar to soft dorsal. Caudal nearly $\frac{1}{2}$ length of head, slightly rounded. Scales cycloid; two rows below the eyes posteriorly, a
few on opercle. Lateral line tubes branching freely at posterior end. Lat. l. 47, lat. tr. $\frac{5}{12}$.

Colour (of preserved specimen), uniform brown.
One specimen, 390 mm . in length, from Mr. Robinson, Natal.

## Family GONORHYNCHID $\underset{\text { 玉. }}{ }$

Gonorhynchus greyi, Richards.
Depth of body $10 \frac{1}{6}$ to $10 \frac{3}{5}$ times in total length excluding caudal, length of head $4 \frac{3}{5}$ times. Snout about twice diameter of eye, which is a little less than interorbital width and 5 to $5 \frac{1}{ \pm}$ times in length of head.

Dorsal $11 ; 1$ st ray short, about $\frac{2}{5}$ length of 2 nd, which is a little more than $\frac{1}{2}$ length of head and nearly subequal with 3 rd and 4 th ; succeeding rays decrease in height posteriorly. Pectorals $\frac{7}{10}$ length of head. Ventrals 9 ; about $\frac{1}{2}$ length of head. Anal 9 ; similar to dorsal but not so high. Caudal forked, $\frac{1}{2}$ to $\frac{2}{3}$ length of head.

Colour (of preserved specimens), pale brown, darker above than below. Pectorals black with a white edge, dorsal, anal, and ventrals with terminal portions black edged with white, caudal with black centre ; scales speckled with minute red dots, especially above the lateral line.
Two specimens, 180 mm . and 193 mm . in length respectively, procured by the ss. Pieter Fune in shrimp trawl, 26 fms ., mud and sand, Amatikulu River mouth NW. $\frac{1}{2}$ N. $9 \frac{1}{2}$ miles.

## Family SCOMBRESOCIDA.

Tylosurus choram, Forsk.
No vomerine teeth; asperities on tongue. Depth of body 16 times in total length excluding caudal, length of head $3 \frac{1}{ \pm}$ times. Snout $6 \frac{1}{2}$ times diameter of eye, which is $1 \frac{2}{5}$ times in interorbital width and $10 \frac{3}{10}$ times in length of head. Interorbital space broad and flat, superciliary region striated; maxillary reaches to vertical of anterior margin of eye and concealed by preorbital; lower jaw projects beyond upper. Top of head with a flat bony plate over its entire breadth and reaching through striated interorbital region to front of
eyes, where there is a transverse groove. Eyes large, situated on upper margin of head and occupying two-thirds of its depth, their diameter being between $\frac{2}{5}$ and $\frac{1}{2}$ of the length of postorbital portion of the head.

Dorsal 23 ; situated in posterior third of body, commencing in line with origin of anal and reaching nearly to caudal ; low, the anterior rays about $\frac{1}{5}$ length of head, the middle ones about $\frac{1}{8}$ length of head, the remainder shortening and again lengthening posteriorly to nearly $\frac{1}{4}$ length of head and slightly filamentous. Pectorals $\frac{1}{4}$ length of head. Ventrals $\frac{1}{5}$ length of head, situated about midway between anterior margin of eye and origin of caudal. Anal 21 ; anterior rays nearly as high as longest rays of dorsal, posterior rays low. Caudal forked, inferior lobe longest and a little more than $\frac{1}{3}$ length of head. Free portion of tail compressed and the lateral line forms a keel on each side of it.

Colour (of preserved specimen), greenish above, silvery below.
The fish does not exactly correspond to the description of Bellone (Tylosurus) choram, Günth., and resembles in some respects $B$. amulata.

One specimen, 336 mm . in length, from Mr. Kobinson, Natal.

## Family CLUPEIDA.

## Engraulis vitrirostris, n. sp.

(Glass-nose.)
Teeth, fine, a row on each jaw, two patches on vomer, a band on palatines, and covering the tongue. Depth of body $3 \frac{1}{2}$ to nearly $3 \frac{3}{4}$ times in total length excluding caudal, length of head $4 \frac{1}{3}$ times. Snout $\frac{7}{3}$ to $\frac{8}{3}$ diameter of eye, which equals or is slightly less than interorbital width and is $4 \frac{1}{2}$ to $4 \frac{5}{5}$ times in length of head. Eyes subcutaneous; snout obtuse and projects slightly beyond upper jaw ; maxillary produced beyond gill-opening to a little beyond the base of the pectorals; opercle rather more than twice as high as broad; gill-rakers about $\frac{1}{2}$ diameter of eye in length, $21-24$ in horizontal limb of outer branchial arch.

Dorsal i 12 ; commences nearly midway between base of caudal and point of snout; spine short and separate from soft rays. Pectorals $\frac{3}{4}$ to $\frac{4}{5}$ length of head, reach to origin of ventrals, which are very small, about $\frac{1}{3}$ length of head. Anal 41 ; commences behind
vertical of last ray of dorsal. Caudal nearly as long as head, forked. Scales moderately large, cycloid; 16 scutes anterior to, 9 behind base of ventrals.

Colour (of preserved specimens), silvery, shot with gold, back a darker shade, venules on shoulder.

Three specimens, two 178 mm . each in length, from Mr. Robinson, Natal ; one 159 mm . in length, procured by Pieter Faure (ss.) from Inner Harbour, Durban.

## Pellona natalensis, n. sp.

Teeth on jaws, palate, vomer, and tongue. Depth of body $2 \frac{3}{4}$ times in total length excluding caudal, length of head $3 \frac{3}{5}$ times. Snout nearly $\frac{7}{5}$ diameter of eye, which is $1 \frac{7}{8}$ times interorbital width and $2 \frac{3}{5}$ times in length of head. Ridges on occiput converge very slightly posteriorly and meet anteriorly; mouth opens on superior side, lower jaw projects beyond upper; maxillary reaches to vertical of posterior nostril; eyes large and situated high up, occupying upper half of head. Dorsal profile almost straight, abdominal profile convex.

Dorsal 17 ; situated about midway between point of snout and base of caudal. Pectorals $\frac{3}{3}$ length of head. Ventrals situated just in front of vertical of origin of dorsal and very small, about $\frac{1}{2}$ diameter of eye in length. Anal 37; commences below posterior margin of dorsal, length of base $2_{5}^{4}$ times in total length of body excluding caudal. Caudal forked, as long as the head. Scales, 16 scutes anterior to and 8 posterior to ventral fins.

One specimen, 140 mm . in length, procured by the ss. Pieter Faure in shrimp trawl, 24 fms., mud, South Head Tugela River N. by W. $4 \frac{1}{2}$ miles.

## Family CHIROCENTRID风.

Chirocentrus dorab, Forsk.
Teeth, a pair of long, sharp, approximating canines near centre of premaxillaries, the remainder of the teeth in the upper jaw sharp and straight, becoming smaller posteriorly; lower jaw with long, sharp, laterally compressed, isolated teeth, the 1st short, rising to 3rd and 4th, and again becoming successively shorter posteriorly and more and more directed backwards, the last forming an acute angle with the jaw; a few card-like teeth on palatine bones and
vomer, and fine teeth on tongue. Depth of body $6 \frac{3}{10}$ times in total length excluding caudal, length of head $5 \frac{3}{4}$ times. Snout about $1 \frac{1}{8}$ times diameter of eye, which is $4 \frac{2}{3}$ times in length of head; interorbital width $\frac{2}{3}$ diameter of eye. Upper lip terminating anteriorly in a short pointed flap, lower jaw projecting strongly beyond upper, and chin pronounced; maxillary reaches to vertical of middle of orbits; interorbital space convex; profile of head low and snout somewhat pointed.

Dorsal 17; situated in posterior third of body above anal, rays short and decreasing in length posteriorly. Pectorals $\frac{3}{4}$ length of head, with a long ossified appendage at base superiorly. Ventrals 7; very short, about $\frac{1}{i}$ length of head and commencing about midway between point of snout and base of caudal. Anal 32 ; 2nd ray about $\frac{1}{3}$ length of head, remainder shortening posteriorly. Abdomen with short hair-like rays on its margin. Caudal deeply forked, $1 \frac{1}{5}$ times length of head. Lateral line indistinct.

Colour (of preserved specimen), dark above, silvery below.
One specimen, 403 mm . in length, from Mr. Robinson, Natal.

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[^0]:    * The older classification of families is retained for present purposes.

[^1]:    * The Pristipoma of Cuvier, 1829, is the Pomadasis of Lacépede, 1803; it is temporarily retained for local convenience of reference.

